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TIMES PAST THE TIMES

HIGHER EDUCATION SUPPLEMENT

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The values of salaries

The annual argument about university teachers' pay follows a fixed (and empty?) routine. The Association of University Teachers makes a claim that looks aggressive and even unrealistic, because in cash terms it demands a substantial increase, but in fact is defensive and even conservative, because invariably its basis is the desire to restore the effective value of university teachers' pay to a former more favourable level. This catching-up quality is captured in clumsy phrases like "rectify the anomaly" and more recently "restore the erosion."

The reaction of the vice chancellors, in the shape of the University Authorities Panel the ersatz employers in the first stage of the rather contrived machinery for negotiating university teachers' salaries, is just as predictable. They express broad sympathy for the AUT's objectives and bemoan the declining value of academic pay, but quickly add that under the present unflexible regime of cash limits the universities cannot possibly afford to meet the claim. In the next stage the AUT asks the vice chancellors to join it in a formal protest to the Department of Education and Science about the inadequacy of university funding. Generally the vice chancellors decline, politely of course and after a great deal of humming and hawing.

The whole process is artificial because everyone knows that the real decisions get taken elsewhere – when the Government makes its global assumptions about the movement of pay and prices which then get built into the cash limited totals for public expenditure, and when (nowadays more probably if) other public sector trade unions with much greater bargaining power manage to force the Government to be more flexible. The success or failure of the AUT's pay claim is parasitic on the outcome of the claims of civil servants, school teachers and other larger groups of professional workers in the public sector.

Fast footwork by the AUT's negotiators can secure a marginal advantage over the "going rate", just as slow footwork can leave university teachers a half or three quarters of a per cent adrift. But it is inevitable that much of the negotiating effort of the AUT and the employing universities will be spent on secondary and specialized issues like the salary of clinical teachers, Days of action, demonstrations, stickers that announce "Britain's universities – working for Britain", may keep up the morale of AUT members but they have little influence over the final settlement of the association's pay claims.

The immediate conclusion to be drawn from the increasing artificiality of the annual negotiations between the AUT and the universities (and later in committee B with the Department of Education and Science) is that the strength of the AUT depends crucially on the strength of the larger trade union movement. If the latter is weak, the bargaining position of university teachers will be eroded even if the AUT is regarded by the university "establishment" with the most dignified respect. So it is probably a mistake to dismiss the AUT's involvement in broader trade union issues like the miners' strike or the Government's new legislation on ballots as irrelevant posturing. On the contrary in the concrete situation faced by the AUT it makes good sense for the association to demonstrate its solidarity with other trade unions. The increasingly unionized ethos of the AUT is not an unfortunate aberration but grows directly out of the present predicament of the association.

A second possible conclusion is that the present negotiating machinery is so anomalous that its reconstruction has become urgent. Should Committee B be scrapped and the AUT and the universities left to argue out the trade-offs between pay and jobs within the actual resources available? After all what substance can there be in negotiations with the DES when a superior department, the Treasury, has already foreclosed the outcome? Or should Committee A be abandoned, for substantive if not secondary salary questions, and the AUT and the vice chancellors take a united stand against the harsh cash limits set by the Government? Maybe all teachers in higher and further education should be paid on compatible salary scales, although the difficulty of amalgamating the Committee A-B structure with the Burnham FE machinery let alone contemplating a closer association between the AUT and the National Association of Teachers in Further and Higher Education would be very great.

Both conclusions, the case for wider trade union solidarity and the case for detailed technical reform of existing negotiating machinery, are necessary responses to the predicament facing university teachers but neither is a sufficient response. Both make it difficult for their particular problems to be brought into proper focus. In the wide perspective of trade union solidarity either these problems are almost invisible because they form such a small part of a much bigger public sector picture or they have to be deliberately ignored in the cause of sustaining a much broader unity. So university teachers do not always benefit from the homogenization of public sector pay claims. Although there may be large areas of common interest and even identity, hospital porters, school teachers and university professors have different internal priorities and find themselves in different external markets. These cannot easily be rolled up in some jumbo public sector claim; yet this is the effective form that has been dictated by the Government's simplistic and indifferentiated approach to cash limits and the inevitably equally indifferentiated response of trade unions to this challenge.

The difficulty with the second conclusion, that the most urgent priority is to reform the present negotiating machinery, is the very opposite. Instead of being lost in some vast homogenized public sector pay strategy, the important issues facing university teachers as a profession are superseded by detailed technical issues. We concentrate on the individual trees instead of considering the shape of the whole wood (but not the vast public sector forest). The reconstruction of the Committee A-B structure or the relationship between university and polytechnic teachers' salaries are important of course, but not as important as the deep-rooted decline of academic salaries with all its consequences for the present status and morale of the profession and future recruitment into teaching and research in higher education.

These malignant consequences are fast becoming obvious. The disappointing response to many of the "new blood" posts, and not only in new technology or because the job descriptions were too narrow, was an alarming symptom of the declining attractiveness of an academic career to the best and the brightest young people. There are many reasons for this of course, but inadequate salaries are clearly an important factor. Not only have academic salaries failed to keep pace with inflation but pay in competitive jobs has shot ahead.

Today the sales manager of a high tech company is likely to be paid several thousand pounds more than a university professor who may play a decisive role in shaping the technology on which the success of the manager's company depends. The absurd justification is that the former is creating wealth while the latter is consuming it. But it is not simply a question of salaries. There seems to have been a pronounced cultural shift against the academic profession, a shift which the present Government has assiduously supported. The status of universities has come under constant attack along with their income. Because we live in a society that, apparently, values the secondary exploitation and expert manipulation of money wealth more highly than the primary production of the nation's true wealth, the skills of its people and the quality of its science and learning, those engaged in the former are respected and rewarded more highly than those engaged in the latter. That is why academic salaries have declined. And because these perverse priorities need to be reversed, that is why that decline must not be endlessly tolerated.

Six of the best colleges

It is difficult not to feel sympathy with the six colleges and institutes trying to attain polytechnic status. Although smaller than the existing polytechnics, most are not so very different in character or in the quality of most of their courses. Yet they face a constant uphill battle for the best students, research grants, consultancies and proper recognition from employers.

A change of name would not necessarily unlock all these doors, but obviously it would go a long way. Public ignorance of what goes on in polytechnics may be alarming enough, but the suspicion is that it applies doubly in the colleges.

To add insult to injury, they also have to exist on poorer funding levels, despite undisputed evidence that their costs are similar. There is a recognition within the National Advisory Body that this situation cannot continue if the public sector's case for parity with the universities is to be credible. But the NAB has found that it is not easy to devise a system which is both equitable and sensible in the distribution of funds it produces. No one wants to squeeze science in the polytechnics still harder for the sake of liberal arts in the colleges.

In any case, the argument is not simply about money. A system will emerge (although probably not this year) which offers similar funding for similar work, but it will not enable the colleges to compete on equal terms with the polytechnics, let alone the universities. So what are the objections to designating more polytechnics?

The most common one is size. Only Humberside approaches even the smallest polytechnic and few of the six candidates have the breadth of courses which was thought desirable in a polytechnic when the issue was addressed in 1966. But we have national planning now and any of the six would be happy to accept gradual growth, given the resources. There certainly was no minimum size laid down in 1966 and plenty of today's colleges would have been large by comparison with some of the successful candidates then.

The other common objection is that it would be difficult to draw the line between the larger colleges and institutes, and a new round of designations might open the floodgates. That need not be so. Both the NAB and the Department of Education and Science discriminate between institutions constantly and, as now, each case must be treated on its merits.

It would be surprising if all six hopefuls were successful this time around, but there is no reason why polytechnic status should be a subject for discussion only every two decades. There seems to be little reason, other than innate resistance to change, why Humberside should not be given its polytechnic straight away. On every criterion, from regional need to breadth and quality of provision, its case is a good one.

For the rest, perhaps a longer look is needed, but none should be ruled out. Dorset has a strong regional case, Chelmer could boost the deprived East Anglian area, Ealing has long been an institution of quality, Bolton can point to strong industrial links and Derby could reasonably expect a polytechnic. No doubt others will throw their hats into the ring as well if more designations are seen to be a possibility. Probably only a handful could make their case in the end, but the demands made of higher education are changing and the way should be open for institutions to change with them.

Fifth Column

Having thought for a long time that Matisse was a grossly overrated artist, I spent some hours recently at an exhibition of his sculpture and regretfully came to the conclusion that my judgement has been correct.

I had been assured by a great expert that the sculptures would reveal to me a new dimension of Matisse's thought and vision. Despite all my efforts I could not persuade myself that the sculptures were much better than the work of any reasonably competent art student. I referred back to those vapid sketches on the walls of the chapel at Venice and found them as empty as ever.

The reason I record this unhappy experience now is that I have just been to the great exhibition of Renoir at the Hayward Gallery and experience similar, though not as great, a disappointment. Perhaps, I thought not for the first time, there is something the matter with me. For the popularity of the Renoir show was fabulous. It was, said *The Times*, London's biggest single art attraction with queues far longer than those for popular stage shows like *Cats* or top pop concerts. As I left the gallery the queue, as determined in the rain as it had been in the snow, stretched as far as you could see. More than 4,000 people a day had visited the gallery.

Inside, the enthusiasm was undiminished. I spent a few hours there sharing the delight of my companion and yet with a growing doubt. It might be, as the leaflet explained, that Renoir's paintings throughout his career presented a wholly unimbled, optimistic vision. That I liked, being no enthusiast for the dark tormented problems or dismal gaspes canvases of much of the modern movement. I remembered the joy of seeing an exhibition of Duffy in the 1950s the sheer loveliness of paintings that were a shout of life and happiness after all the gloom. And yet it didn't work this time.

Some of the paintings were delicious. Landscapes rich with colour and with no black on the shadows, a glowing palette of pure colours and whites, were as lovely as some of the bathers – those podgy nudes with perky faces that we like to ruminate about. The *The Blond Bather* and the *Nude in the Sunlight* must be the kind of Renoir we wanted to see – so many of us.

But some of the drawing was bad and some of the paintings quite hard, with little feeling for the texture of paint. Some heads did not fit on the shoulders and were as clumsily thrown together as the worst 19th-century furniture portraits. The *Judgement of Paris* was simply absurd, worthy of Lilliput, a naive group of solid ladies with thick legs looking funny in the undergrowth.

Perhaps all I am saying is that no artist is wholly good of wholly bad, our problem is simply that once gives the reputation we were expected to discover greatness in every work. Perhaps as one gets older one's discrimination becomes more acute and one's nervousness of the art world less. I think, for instance, of artists of our own times who have stretched a simple but wonderful vision beyond its possibilities. Sooner or later we shall learn to discriminate. Or will we? Will we continue to judge works of art with our ears rather than our eyes?

Patrick Nuttgens

Published by Times Newspapers Ltd, P.O. Box 7, Gray's Inn Road, London WC1X 8EZ. Typesetting by ComputerGraphics Ltd, 37-41 Gower Street, London WC1E 6HH, and printing by Sir Joseph Causton & Sons Ltd, Upper Mounts, Northampton. Monday, May 20, 1985. Registered as a newspaper at the Post Office. ISSN 0307-1943

The Times Higher Education Supplement

May 17, 1985 No 654 Price 60p

Cut-price CERN link proposed

by Jon Turney
Science Correspondent

Britain should stay in CERN, the European laboratory for particle physics, but only if the budget can be cut by agreement with other European countries.

These will be the main recommendations of the committee under Sir John Kendrew considering future British participation in high energy physics, which held its final meeting last Tuesday.

The size of the proposed budget cut will not be known exactly until the committee's report is published next month but all the signs point to a substantial reduction – 25 per cent or more by 1990.

The outcome is a compromise between those who wanted complete withdrawal from subscription to the Geneva laboratory, currently costing £55 million a year, and the physicists who argued that the full payment was needed if Britain was to take part at all.

The committee, which was set up by the Advisory Board for the Research Councils and the Science and Engineering Research Council after an ABRC decision to consider withdrawing from a major area of science, will praise the quality of work at CERN. But the size of the cut they propose will be a severe disappointment to British physicists.

Whitehall sources indicate that private meetings between Sir John Kendrew and M Hubert Curien, the French research minister, and his German counterpart, were crucial in shaping the committee's recommendations. The Europeans are publicly against any negotiated reduction of the CERN budget, but it is understood that they would be prepared to talk privately about a phased cut in spending at CERN, if Britain takes the lead and bears the blame.

The recommendation will have to be approved by ministers if it is passed by the ABRC and the SERC. Sir John Kendrew's findings are sure to trigger a further bout of soul-searching about Britain's role in international science and the SERC will make it clear that the level of cuts proposed goes only a long way to easing its long-term budget problems.

Universities told to face up to cuts and more cuts

by Ngaio Crequer

Some universities may lose more than an eighth of their grant over the next four years because of the combined effects of declining Government funds and the new selective research policy.

In letters to vice chancellors the University Grants Committee has outlined its strategic planning framework for the late 1980s, how it proposes to review the future distribution of resources, and what information it needs to formulate the selective research policy.

It says it deplores the fact that the Government has not accepted the case for "truly level funding". But each university must therefore plan for an average annual decline in recurrent grant of 2 per cent in real terms the equivalent of a university the size of Southampton closing every year.

On top of this universities which do badly under the selective research funding policy face a further 1.5 per cent grant loss in the first year, with strong hints of a greater rate of loss in subsequent years. So some universities would lose around 13.5 per cent of their grant over four years.

Another letter soon to be sent by the UGC will say that the only way to prevent institutional closures will be to close departments. For the moment, all the UGC is saying is that it may need to "take the initiative in particular cases". There may be grants to facilitate mergers and movement of staff among universities.

The letters ask for university plans for student numbers. The UGC/National Advisory Body talks on distribution of numbers between the university and public sector have got nowhere yet but it is likely that next year the UGC will allow some slight easement of targets. It will therefore be up to universities to decide to take more students for the same money and worsen their unit of resource (spending per student) or not. The letters say they do not expect that the recent Jarratt recommendations on efficiency will produce substantial economies.

The UGC will announce the recurrent grant for 1986/87 next May and provisional grants for the following three years later in 1986. Universities will need to provide the committee with their planning objectives, a research statement, forecasts of student numbers and financial forecasts.

Universities will need to give an account of their research strengths in a new 37-subject classification, citing five examples of published work in each subject. But the UGC has said it will not start with any preconceptions about particular research areas to be encouraged selectively. It will not say in advance how much will be selectively distributed and it will not transfer resources between arts, science and medicine, although institutions may wish to do so themselves.

The UGC will soon introduce a scheme for the support of post-experience vocational education that would be highly selective both as to subject and to institution. It will not financially penalize universities which admit students without traditional A level qualifications.

The universities are asked to provide the UGC with their planning responses by November 30. "It is to be expected that there will be increasing differences among universities in the range of subjects they cover, in the nature of research they do, and in teaching styles. With the prospect of continuing financial stringency, all universities will be faced with hard choices." the letters say.

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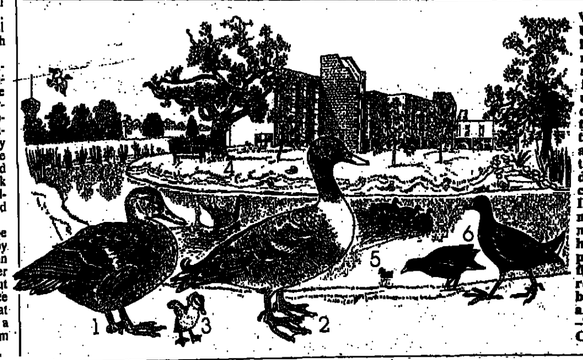


Wildlife at University of Kent is no longer a reflection on the social activities of its students – the university has opened a nature trail with a guide to the plants animals and birds that may be discovered on the campus. Illustrated are mallards, a moorhen and a hybrid goose – the product of a fleeting relationship between a Canada and Chinese goose – outside Keynes College.

Art students win degree appeals

by David Jobbins

Examination procedures at a northern polytechnic are severely criticized in an internal report which recommends that appeals by nine fine art students against their final examination results be upheld.

A report to Leeds Polytechnic's academic board found irregularities in the way the students were assessed, and recommended that the examinations board should reconsider the assessments of all nine students.

The panel was chaired by Mr Donald Davinson, head of the school of librarianship. It concluded: "Inadequate administrative procedures and failures to operate the examination board and assessment regulations in accordance with laid down rules of conduct for the fine art course led to the likelihood that a miscarriage of justice could have occurred and that there was no means of ensuring that the work of the appellants and the difficulties under which it had been carried out were given due weight by the examination board".

The panel deliberately steered away from making academic judgements in recommending that the appeals should be allowed. "It appears that the administrative and procedural irregularities present constitute a sufficient case on the grounds that they must be a material factor in making it difficult to arrive at sound academic decisions".

It identified as the basis for upholding the appeals:

- Unsatisfactory examination board procedures including a failure by external examiners to attend all meetings.
- Failure to take account of the "potentially detrimental" affects of material changes in the structure of the course between 1981 and 1984, and reduced teaching and assesment expertise arising from staff losses.
- External assessment of students as groups contrary to examination regulations and in the absence of agreed criteria.
- Internal assessment and monitoring by people with neither firsthand knowledge of the students nor relevant expertise.

The panel suggested that the examination board should reconvene under the chairmanship of the head of the school with all the external examiners in attendance.

As well as reappraising its decision in the case of the nine students, the panel recommends that the board should consider whether changes in course procedures are needed in the light of so many appeals.

The findings are to be transmitted to a review body set up by governors.

Animal research victory

The Home Office has made significant concessions to researchers in its revised White Paper on animal experiments, published this week.

The original Government proposals on legislation to replace the 1876 law regulating animal experiments included a requirement for applicants for project licences to find a "sponsor" to vouch for their competence and the scientific merit of their application.

Scientists objected that this would create bureaucratic delays, and difficulty finding sponsors qualified to comment. The Home Office has now worked out its new system, and will go ahead with the requirement for project sponsors. But independent scientific assessment will now only be sought on formal recommendation of the Home Office Inspectorate.

Other changes in the White Paper include tighter grading of the pain or distress permitted, with the potential benefits of the work taken into account, in terms of the new regulations, and new requirements to safeguard the welfare of laboratory animals. As before, the proposals will cover animal suffering arising from experiments, such as testing to study physical effects, breeding of tumours, and use of animal embryos.

The White Paper also reaffirms the Government's commitment to back development of alternatives to use of animals in some experiments, but stresses the continuing need for some procedures using living animals for medical and biological research and toxicity testing. The Home Office hopes the new proposals will carry the assent of what the departmental under secretary of state Mr David Mellor called "the realistic element of the animal welfare movement", but the National Anti-Vivisection Society condemned the White Paper as a "confidence trick".

The Home Office's sensitivity on the issue was shown this week by the exclusion of journalists from the British Union for the Abolition of Vivisection from Mr Mellor's press briefing on the new proposals. The union maintains that all animal experiments should be abolished.

Mr Mellor said legislation to implement the new proposals would be introduced in the lifetime of the present Parliament. The Home Office will issue draft guidelines on the detailed criteria for granting project licences when the new Bill appears.

Home Office Scientific Procedures on Living Animals Cmnd 9521. HMSO £3.30

Glasgow controversy, page 6

Creaming spoils milk round

by John O'Leary

Increasing competition for the best graduates among high technology and finance firms is threatening to disrupt the efforts of universities and polytechnics to regulate the job-hunting activities of final-year undergraduates.

Companies trying to steal a march on their rivals are deserting the traditional "milk round" of organized campus interviews in an attempt to cream off the best candidates at an earlier stage. Others claim they cannot handle the volume of applications they receive without starting their selection process before Christmas.

Some companies, notably firms of solicitors and accountants, have been conducting early interview for some years. But careers advisers detect that the practice is spreading.

Mr Bob Porrer, chairman of the Association of Graduate Careers Advisory Services, said this week that he knew a dozen major companies which had moved their recruitment activities forward. Some were taking students off campus for two or three-day selection boards shortly before final examinations without offering them alternative dates.

"The danger is that if employers keep breaking out, we could end up with chaos," said Mr Porrer. "It also makes life quite difficult for careers officers, who are trying to advise students in the first term of their final year."

Employers who persevered with the milk round this year were faced with twin difficulties, as students opted out of interviews either because of early selection by other firms or a separate trend towards keeping options open until summer recruitment fairs. Some found as many as half their pre-selected candidates staying away.

Careers advisers will meet representatives of the bigger employers of graduates next month to discuss a new code of practice for recruitment activities. The code, which is intended to ensure, among other things, that selection is not brought even further forward into students' second years, is likely to be adopted at the annual conference of the Standing Conference of Employers of Graduates.

Mr Keith Bell, chairman of SCOEG, said that no one wanted a self-defeating scramble. But he added: "I simply do not believe that it is true that all, or even a large minority of the best students are creamed off before a variety of employers have had an opportunity to invite them for interview."

letters to the editor

Responding to the Lindop report

Sir, – While I have no intention of entering into a public debate with Eric Robinson about Committee of Directors of Polytechnics' policy on degree validation, I must refute his implication that my welcoming of the Lindop report was in some way at variance with that policy (*THES*, May 3).

In its submission to Lindop, the CDP said: "The CDP is unaware of any valid reasons why some public sector institutions should not be self-validating. It believes there to be a range of models which would prove effective in the maintenance and enhancement of academic standards. These include models based on charters designed to protect the specific characteristics of polytechnics, models involving accreditation and models dependent on some form of licensing . . . the CDP hopes that the committee will give every consideration to this range of possibilities which contains in outline the ideal solution to the problems which have to be considered."

The broad spectrum approach was adopted by the CDP because it was not and still is not known how individual polytechnics will wish to respond to the new opportunities. Directors can no more pledge their own institutions in this than the CDP can pledge individual directors.

Although the Lindop committee's recommendations vary in some details from what the CDP might have wished, overall the proposals bear such a close relationship to the CDP's own submission that I did not hesitate to give a warm welcome to the report on behalf of the CDP, a welcome that was echoed this week by the meeting of CDP officers and chairmen.

Personally, I believe that the Lindop committee has rendered public sector higher education a great service. The proposals in themselves are not discriminatory as Mr Robinson claims. They provide an equality of opportunity for all institutions and none have been selected in the report for preferential treatment over others. Considering the evidence which has been accepted recently to support applications for charters, why should not all polytechnics aspire to full validation?

I hope the Secretary of State will take the action recommended by Lindop and thus enable the full stature and academic potential of polytechnics to find true expression, which could only be to the long term benefit of public sector higher education.

Yours faithfully,
HARRY LAW,
Chairman,
Committee of Directors of Polytechnics,
309 Regent St,
London W1.

Sir, – Thanks to the columns of *The THES* (April 26), those of us in public sector higher education who are not included on Sir Keith's consultation list, have learnt that comments on the Lindop report have to be submitted by June 7, barely six weeks after its publication.

Despite the Secretary of State's expressed hope that "the issues . . . can be widely discussed", this timescale is clearly designed to exclude from the "consultation" exercise those likely to be most affected by the report's recommendations, namely academic boards, staff and students, groups who may hold different views from polytechnic directors but whose opinions nevertheless ought to carry weight.

At an institutional level these groups will have great difficulty in formulating and submitting an effective coordinated response in the truncated timescale allotted.

Yours sincerely,
JAQI NIXON,
Ashbeck,
Hamsey Road,
Barcombe, near Lewes,
East Sussex.

Talent for industry

Sir, – Your second leader of 10 May refers to the likelihood of the universities increasing the pool of talent available to industry. As far as home-domiciled university graduates in engineering, technology, the sciences, mathematical subjects and business and management are concerned, any such courses make a markedly higher proportional contribution than full-time courses do.

The sandwich graduates are on average about 40 per cent more likely to enter UK employment, in any form, in their first career destination. They are about 80 per cent more likely to enter UK manufacturing industry, and about 100 per cent more likely to enter the manufacturing industry nearest to their subject.

The tendency of either type of graduate to enter UK employment is of course less in subjects where other opportunities (eg research studentships) are commoner. The greater tendency of sandwich graduates to take up employment is essentially independent of this effect.

The differences between full-time and sandwich graduates in their tendency specifically to enter manufacturing industry are of considerable interest; for example, business graduates (very few of whom become research students) show a difference quite similar to that of biochemists (of whom studentships are among the most common).

The business graduates from sandwich courses go into industry at the expense, as it were, of the financial sector – as indeed do mathematicians. The sandwich biochemists enter manufacturing more, not by eschewing research studentships, but by entering certain other occupations less. One speculates that these effects are connected with the types of industrial training the students are exposed to during their courses, and consequently the types of employer they are most familiar with, and better known to.

The sandwich students considered, on average, are about 20 per cent more likely to enter UK employment or take a UK higher degree. The figures quoted come from the national data over six recent years, and show considerable stability from year to year. One disappointing feature, if one wants to encourage interest in industry at the school level, is that the more industrially oriented sandwich graduates are only about a quarter as likely to take teacher training.

Yours faithfully,
LESLIE DAVIES,
Vice chairman,
Universities Committee on Integrated Sandwich Courses.

Sir, – The engineering department at Lancaster is closely involved with industry on a large number of research projects, in several teaching company schemes, is in academic partnership in connection with two accelerated experience postgraduate courses which have involved some two hundred firms over the years and has been extending its range of undergraduate courses in recent times.

Taught jointly with the physics department, for example, is an industrially integrated scheme in physical electronic engineering producing its first graduates this year. In 1987 an MEng course in "mechatronics" will first produce much needed graduates versatile in both mechanical and electronic engineering design and shortly next year is a new course in information engineering to be taught jointly with the computing department.

This letter has been stimulated by the casual and inappropriate reference to Lancaster made in your second leader of May 3.

Yours faithfully,
M. ANSON,
Head of engineering department,
Lancaster University,
Bailrigg,
Lancaster.

Letters for publication should arrive Tuesday morning. They should be short as possible and written on one side of the paper. The editor reserves the right to cut or amend letters as necessary.

Political science

Sir, – To deal with Mr Burgin's letter (*THES*, May 3) would require a monograph, but it does provoke some elementary rejoinders. The first is that it is unclear whether he understands what political science is and is not about. His examples of notable books and influential schools of thought suggest that he equates memoirs and policy prescriptions with the whole range of comparative politics. Political scientists however endeavour to order and analyse the way political activity is organized, and that is not limited to the detail of problem-solving (or problem-making) by practitioners.

The second rejoinder is that it is not necessarily the fault of political science that most practitioners of politics in Britain are indifferent to its findings. They may feel they understand well enough how to perform within their own arena. They may flinch from seeing themselves as objects under a microscope. Or they may prefer to avoid unsettling accounts of their craft and what it represents. Their lack of interest in systematic analysis is perhaps less reprehensible than that of those who elect them and provide the cash for their operations.

Admittedly, as Professor Smith pointed out (*THES*, April 19), Britain is a somewhat extreme case. In other Western countries there are politicians who take a greater interest in the findings of political science and who are prepared to consult political scientists in certain areas. Any political scientist could explain this variation between Britain and elsewhere – in terms of the structure and culture of British political life. But that explanation would also be unlikely to interest British MPs or civil servants who are, after all, exemplars of that structure and culture.

The third rejoinder is that it is less the absence of inside experience (which some political scientists already have via previous careers) than the problem of access to information which can thwart precise current analysis of the British policy process. And given the Official Secrets Act, secondment to the civil service could hardly remedy this.

Finally it is worth reminding Mr Burgin, and others, that not all political scientists confine themselves to the British case. Whitehall may seem to some the centre of the universe, but there are 150 other states out there which some of us believe it is important to study.

Yours sincerely,
KEN GLADDISH,
Department of politics,
Reading University.

Keywork

Sir, – I am somewhat surprised to see you publishing an article written by Dr Albert Schofield on Vance Packard's book *The Hidden Persuaders* (*THES*, May 3). As an MA student in the marketing department at Lancaster University in 1970/71, I recall writing an essay in which I quoted from this "keywork". I also remember the comments written in the margin by the assessor: "a dubious source".

As I pointed out in the article the book is very dated and, for the reasons mentioned in the article, the book has always been regarded, in academic circles, as a dubious source.

It is certainly not a "keywork" or a recent work in the academic marketing literature and I find it surprising therefore that it should be deemed a suitable book for discussion in an academic journal. While Dr Schofield's work is interesting, it does not merit the attention that you have given it.

Yours truly,
TONY PROCTOR,
University of Manchester Centre for Urban and Regional Industrial Development.

Overseas drop

Sir, – The drop in the number of overseas students studying in Britain and the fact that Britain is receiving a declining proportion of the worldwide total of overseas students (*THES*, May 10) may be seen as one result of the cuts in funding which have been and are being experienced by higher education in Britain. This decline is likely to threaten the viability of some postgraduate courses and comes at a time when many universities are finding it increasingly difficult to attract and fund UK postgraduate students.

A likely result is that in future more British students, particularly at postgraduate level, will seek to study abroad. The United States may be the main beneficiary of this change. Not only are there graduate programmes in many US universities, but in most disciplines there are also opportunities to obtain financial support – fellowships, teaching and research assistantships – as well as in the longer term more job opportunities in higher education.

While it might be encouraging to think that these well qualified students will return to Britain with attendant benefits for British higher education, many of these students are likely to be deterred from returning to Britain. The reasons – the lack of job opportunities and the fact that, even if a post were available, salary levels are so far below those obtainable elsewhere. Perhaps a second "brain drain" will soon be underway. The consequences of which, as we move into the "information society", are likely to be extremely damaging to this country.

Yours faithfully,
CHARLES JACKSON,
Department of applied psychology,
UWIST.

Nursing changes

Sir, – I read with interest Maggie Richard's article regarding the Royal College of Nursing publication *The Education of Nurses: A New Dispensation* (*THES*, April 19).

In Chichester, the School of Nursing moved into accommodation, in West Sussex Institute of Higher Education, Bishop Otter College, in January 1985. The move is not just a renting of accommodation but the beginning of an academic association in a real sense. Preliminary plans include cooperation both ways in academic developments and the possible setting up of a research facility to provide the sound clinical basis for nursing in a traditional nurse education.

Chichester School of Nursing's association with educational establishments outside of the health service is not new, as we have long been cooperating and running courses jointly with Chichester's other college, the College of Technology.

My hope for nurse education is that higher education and nurse educators are able to grasp the nettle and despite the financial restrictions which assail us all, make real progress towards proper professional education for nurses.

Yours sincerely,
JOHN SUGDEN,
Director of Nurse Education,
Chichester and Graylingwell School of Nursing and Vocational Studies,
Bishop Otter College, Chichester.

Intakes

Sir, – It is perhaps understandable that institutions are reluctant to increase their initial teacher training intakes at the expense of the humanities (*THES*, May 10). The differential weighting of 1.4 to 1.0 respectively could mean a loss of 14 humanities students for a gain of 10 in teacher training. More importantly, there are the obvious implications for staff already in post if institutions then require other tutors with substantial, recent and relevant experience of primary education, particularly the early years.

Yours faithfully,
FRANCIS W. WRIGHT,
Principal,
North Riding College of Education,
Scarborough.

"SO, WELSH IT IS THEN..."

Many tongues

Sir, – Now it can be told! At a certain Welsh higher educational institution, not a million miles from Dylan Thomas's birthplace, the committee was meeting to choose the carols for the Christmas carol service.

This committee, being composed of practising Christians, was renowned for the bitterness and acrimony of its deliberations. The meeting was opened, and it was proposed that before discussion began, the Lord's prayer be said. To this there was general assent, until the question was raised: "In English or in Welsh?"

Some 30 minutes of vitriolic debate followed, until it was agreed that it should be said in both languages. "But which first?" An even longer period of turmoil ensued, until someone proposed that it should be said in both languages simultaneously, each member saying it in the language he preferred.

Relief was felt all round, and they could at last turn to the carol service. Yet it was not to be. A voice cut through. "But will God understand it?"

Yours faithfully,
JOHN LATHAM,
Department of economic history,
University College of Swansea.

APT ballot rules out strike action

by David Jobbins

Fewer than 7 per cent of lecturers who belong to the non-TUC Association of Polytechnic Teachers are prepared to strike at the present stage of salary negotiations.

But 19 per cent are prepared to support other forms of industrial action, a ballot of the union's members conducted with funds provided under the Trade Union Act, disclosed this week. At least 58 per cent of the membership would take action short of a strike if the local authority employers refused to increase their 4 per cent pay offer or block access to arbitration.

Dr Tony Pointon, the APTs national secretary, said this week: "I am surprised how many people are sufficiently angry at the present circumstances to contemplate some form of industrial action among a traditionally professional membership such as ours."

APT leaders emphasized they were not actively contemplating industrial action but had merely sought to find out what their members thought.

The association has advised members not to undermine the overtime ban and refusal to cover for absent colleagues being operated by the main union, the National Association of Teachers in Further and Higher Education, but to work normally during strikes.

Neither wave of rallies and one-day strikes across the country culminates next week with rallies in London and Belfast. Rallies have been well attended, with speakers from both the National Union of Teachers and the Association of University Teachers. An estimated 600 attended the Leeds rally, with 400 at Manchester and 300 in Birmingham.

But there are indications that support for the strikes remain mixed, with a number of branches operating the first level of sanctions either voting against or not gaining a sufficient majority for an instruction to strike.

● The British Medical Association appealed to Sir Keith Joseph, Secretary of State for Education, to maintain the principal of parity between pay rises for National Health Service doctors and dentists and university clinical staff.

The vice chancellors are keen to maintain the parity principle, but several universities faced severe financial problems after the Treasury refused last year to provide extra money to help bridge the gap between the non-clinical award and the NHS settlement.

● Scottish college of education lecturers were this week poised to reject management proposals for common conditions of service throughout the tertiary sector, writes Olga Wojtas.

The Association of Lecturers in Colleges of Education in Scotland was to propose unilateral implementation of previously agreed education college conditions when it met management in the Scottish Joint Negotiating Committee.

Agreed conditions for Scotland's seven colleges of education were overtaken four years ago when the SJNC was set up to cover all tertiary institutions.

But the ALCES maintains the proposed common conditions are a deterioration of its 1981 agreement, and since last November have withdrawn goodwill, working strictly to rule.

An ALCES opinion poll conducted by its national executive reveals that 95 per cent of members rejected common conditions of service, and 75 per cent advocated unilateral implementation of the 1981 agreement. Ninety per cent have voted for continuing the present action.

Joint effort to attract overseas

By Peter Aspden

Oxford University, Oxford Polytechnic and Abingdon and Oxford colleges of further education have joined together to set up a consortium, aimed at attracting overseas students and providing a consultancy service.

The four institutions, which have also joined up with the management consultants, Hay/MSL, have circulated a joint publication to embassies, consulates, government organizations and large overseas employers to advertise their various strengths.

The consortium's chairman and the deputy director of Oxford Polytechnic, Mr Victor Owen, said: "It is basically a pre-pronged approach, to attract students from overseas and to emphasize Oxford's academic excellence at all levels, and to provide a consultancy service for any work which is required."

"It is a fairly loose arrangement at this stage, because we didn't want to tie anyone down to a tight management structure, but we felt it was important for all of Oxford's institutions to cooperate, and this has been achieved."

The consortium has also recruited the help of the British Council in distributing its publicity. "At first we will concentrate on established areas for graduate recruitment, such as Malaysia, Singapore and Hong Kong, but then possibly look at the United States and Australasia," said Mr Owen.

Mr Roy Butler, of Hay/MSL, said: "This is a good example of cooperation between business and higher education, at a time when we hear so much about the relationship between industry and higher education. There are many areas in the third world which need advice on managing as much as providing aid, and the consortium can provide an important input."

Oxford students who volunteered to help staff the consortium's public relations office, at 11,000, which they will share with the College of Bawalchie, in Nigeria, have also been given special employment by the university.

Queen's v-c appointed

Queen's University, Belfast has appointed Professor Gordon Beveridge as its new vice chancellor, to succeed Dr Peter Froggatt, in October 1986. Professor Beveridge, 51, is currently professor of chemical engineering at Strathclyde University.

Deaths lead to new guide

by Jon Turney
Science Correspondent

The Royal College of Physicians is producing new guidelines to protect healthy human volunteers for medical experiments, following two recent deaths during trials of new drugs.

The college is especially concerned to avoid medical students, who supply most volunteers, being coerced into taking part by their teachers. And it wants to make sure the money paid to volunteers is not an "undue inducement", according to Sir Raymond Hoffenberg, the college's president.

The guidelines will be drawn up by a committee, chaired by Sir Raymond and convened at the request of the Medicines Commission. They will cover trials carried out in medical schools, hospitals and by contract research companies.

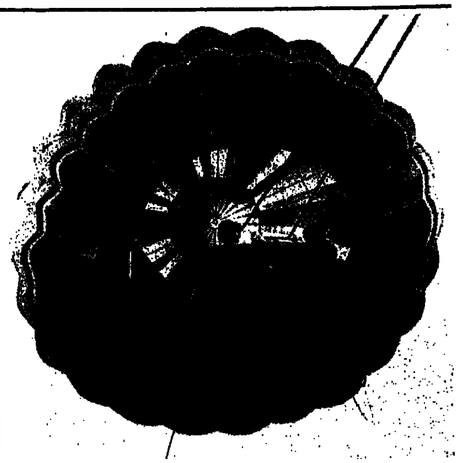
The committee's recommendations will cover compensation for possible injury, limits on the number of experiments per volunteer and medical facilities in the laboratory.

The committee also hopes to define a reasonable payment. However as the going rate for drug trials is around £20 a day, according to evidence taken from medical students, it will be difficult to argue this is not an inducement.

The group will pay special attention to protection of drug company employees, who might feel obliged to take part in trials. Sir Raymond said the committee felt medical students might be in the same position. The group had thought of recommending that no student take part in a trial run by their own teacher, but this was difficult as "most students come into contact with most teachers".

Sir Raymond said however there were some advantages in using medical students, instead of those studying for other degrees. "There is a certain educational element; it doesn't do medical students any harm to take some of the medications their patients will take later and see how they feel," he said.

The committee will write guidelines which assume that any legitimate trial on healthy subjects carries "negligible risk", Sir Raymond said. The college's recommendations should be published before the end of the year.



Visiting sixth formers hitch a sky ride with Graham Turnbull, a professional balloonist who offered free rides to all visitors during Liverpool University's open day last weekend.

Legal studies centre should be retained, says report

The Institute of Professional Legal Studies at Queen's University, Belfast should be retained as the best and sole form of training for entry into Northern Ireland's legal profession, a Government-commissioned report published this week says.

The report is the work of a committee set up by the Government in 1983 under the chairmanship of Professor Peter Bromley of Manchester University to review the future of the institute and legal education in the province.

But although the committee recommends that all other alternative routes to training – with a few exceptions – should be closed, it stresses that it is vital that training at the institute and training in practice should become closely integrated.

To this end, it proposes that all intending solicitors should be apprenticed for a period of two years of which the first three months would be spent in the office, the next 12 at the institute and the remainder back in the office.

Similarly it says the Inn should consider basing pupillage on a two year period, the first of which would coincide with the barrister's course at the institute and the second year to take place after he or she has been called to the bar.

The committee says it is best that the institute remains part of the university and stays in the same location. It had considered giving it independent status but this would have resulted in the loss of grant from the Department of Education which the profession had made clear it could not make up.

For this reason it strongly recommends the establishment of selection committees which comprise a majority of legal practitioners but which at the same time preserve the constitutional position of the university.

The committee also want the Council of Legal Education to shoulder much more responsibility. It recommends that its composition should be changed so as to give the university and the profession equal representation.

Sir Keith urged to safeguard adult literacy teaching

Sir Keith Joseph, Secretary of State for Education and Science, was urged this week to introduce legislation to safeguard the standard of adult literacy teaching.

The call came from Mr Alan Wells, director of the Adult Literacy and Basic Skills Unit, at the unit's annual conference when he outlined the unit's priorities after ten year's work, and highlighted disparities in the quality of provision. Mr Wells hoped these could be removed over the next ten years.

He also referred to the need, after ten years of intense development activity, for a research base to build up to underpin the service, and especially to evaluate the learning opportunities available to students.

Sir Keith paid tribute at the conference to the achievements in literacy and basic skills since 1975, but he went on to emphasize the decentralized nature of the education service and the responsibilities of local education authorities in maintenance of provision.

The adult literacy campaign began in 1975 when the Adult Literacy Resource Agency was created and allocated £1 million to assist local authorities and voluntary groups to establish widespread provision. The campaign was launched following a report which revealed up to two million adults experienced difficulties with reading and writing. During the last ten years, provision has been broadened to cover the wider remit of numeracy and general basic skills.

Gloomy forecast as v-cs warn of job losses

Vice chancellors, taking stock of the grim financial outlook recently presented by the University Grants Committee, have warned of further job losses and the running down of departments in universities.

In a series of separate statements, universities round the country are being told to expect substantial changes in the coming years, prompted by the switch to science and technology, research selectivity, the increased emphasis on efficiency and the general cuts in Government funding.

At Kent University, the vice chancellor, Dr David Ingram, said: "It is clear that we will have to lose quite a large number of academic and other posts over the next few years to balance our budgets, but it is also clear that we must give some protection to those areas which are very successful in bringing in non-UGC finance."

He urged the university's planning committee to identify "protected" areas, and calculate the percentage outback across all other sectors. "It is clear that some areas of university work will have to be run down in order to produce the savings required."

"The senate has understandably fought shy of identifying such areas in the past but it will be essential for us to do this now, so that we can tell members of staff who inquire whether they could be considered for early retirement or voluntary redundancy. This is one of the hard decisions which will have to be made over the next few months."

At the University of East Anglia, the vice chancellor, Professor Michael Thompson told the university court that they were facing a "very sombre outlook", which could only be improved by changes in public attitude and Government policy.

"We have just come through a testing period where inefficiency and waste have been attacked, additional income generated, principally from an increase of overseas students, our home student numbers have been reduced and yet redistributed towards science, and staffing levels have fallen overall.

"Further economies will be much more difficult to find. We should not significantly increase intakes from overseas and [illegible] not able to retire prematurely have already done so."

Professor Thompson also stressed that students, as well as universities, were facing continuing financial hardship. "Their main grant has been eroded for a number of years and now, as a result of the Government's announced intention to alter the arrangements for travel grants, many students are likely to face a further considerable reduction in their resources."

He criticized the Government's review of higher education, for not concerning itself with its aims, functions and purposes, but being set essentially in terms of financial restriction.

At Newcastle University, the vice chancellor, Professor Laurence Martin, also warned the court of an absolute decline in resources and continual uncertainty about the future. Many more vice chancellors have privately admitted that further job losses are inevitable in the coming years to cope with the "climate of turbulence" in which they have been thrust.

Caribbean centre opens

Developed countries are no longer interested in creating a climate of international cooperation in which the developing world can play a fuller part, said the secretary general of the Commonwealth, Sir Shridath Ramphal, in a major policy speech at Warwick University.

Sir Shridath was attending the official opening of the university's new centre for Caribbean studies, at which the Ambassadors of Honduras and Cuba, and the High Commissioners for Guyana, Jamaica and Trinidad and Tobago were also present.

He said it was doubtful the global consensus to international cooperation of 20 years still existed, and whether it could be made the unspoken premise of policy options.

"The alternative to international cooperation is a drift towards a more rigid, fragmented, and power-dominated international environment, a drift way from order, stability, predictability and rules, towards a greater arbitrariness, uncertainty and exercise of power," he said.

DON'S DIARY

I have often wondered why most diaries are dominated by appointments and meetings rather than reports of routines, moods, and familiar faces of family, neighbours and the departmental secretary? I last kept a regular diary when a teenager. I soon realized that it is a job for small minds and stopped. The only people I know who keep diaries are politicians, to provide material for an autobiography or even publication. These are not only lucrative but pander to the politicians' wish to be understood in their own time. I suspect that the more achievement-oriented dons are doomed to disappointment when they confront the dry record of how little they have done.

MONDAY

A calculated rise at 8am, after the children have gone to school. Missing the breakfast-time mayhem is a bonus but it leaves me vulnerable to my wife's observation that she had done two hours' work before I was up. Prepare lecture for final class in west European politics. I give the students a take-home examination (four essays from six questions, to be submitted two days later), and ask for questions on the paper and/or the course. As ever, I am taken aback by the knowledge gaps revealed by the questions as well as the failure to ask questions I think they *should* ask.

Spend afternoon preparing an after-dinner speech on the political leadership style of Mrs Thatcher. I have some competition. The previous night I heard an interesting talk by a libertarian on Mrs T. Like President Reagan, she may believe in a free market economy, but not in the permissive society. Today, Lord Annan is receiving an award from Berkeley, across the bay, and gives a talk on Mrs T.

TUESDAY

Lunch with Marty Lipset, uniquely a former president of both the American Political Science Association and Sociological Association. His famous *Political Man* was the first book I read as a graduate student in 1964. His conversation ranges over socialism in Spain, Sweden, Papandreou as a former colleague at Berkeley, state of British sociology, opinion polling in Britain and education in Japan in the nineteenth century. Like others he comments that academic job prospects in political science are improving.

Having learnt that he is a *THES* subscriber I collect some recent back copies from him. The front-page headlines are, as ever, depressing. "Universities' finances means more job cuts." "Keep numbers down, universities told." "Standards slashed in overseas race." Reflect that for higher education no news is good news and sustain morale by avoiding *The THES*.

Spend late afternoon and evening correcting page proofs of book. Occasionally I wonder: Did I really write that?

WEDNESDAY

Avoid lunch seminar. Stanford's political science department arranges three or four talks a week at midday for faculty, visitors and graduate students. Today's offering is a so-called "job presentation". When departments want to make an appointment, each applicant is expected to visit the department and university for a few days and make a presentation. The faces of faculty and the questions they give an indication of what the department's recommendation will be. Spend day revising a chapter for a book on western European politics.

THURSDAY

All the exam scripts are submitted on time. Most are 12–15 pages in length, neatly typed and double spaced. In my lectures I have tried to combat the prevalent American conception that Europe is a monolith. At the beginning and end of my lectures I find myself reminding students just how different the United States is from most other western societies; no idea of a sovereign state, Social Democratic or Christian Democratic parties, for example.

I am impressed by the quality of the scripts and the standard of writing. But these students are supposed to be among America's best. I give a third of the students an A, which is slightly above the Stanford "norm", and way above what we give students in English universities (but that is another story). I give one C, and that to a student who began a paragraph: "As Professor Kavanagh, a foremost scholar . . ."!

FRIDAY

I cycle for seven to eight minutes to my office, a pleasant change from my routine in England. As usual, the sky is blue and the sun bright.

One student is waiting to query my grade of her final as B++. It appears that the administration will record this as a B, she wants to go to law school and grades count, she worked "real hard" for the course (true), and over a total of seven essays she has four As. Will I look at it and see if it is an A or a B? Overwhelmed by the reasonableness of the case, I agree. The rest of the day I work on a lecture which I am to give to a conference tomorrow.

SATURDAY

We leave at 8am for San Luis Obispo, some 200 miles south, where the Pacific Section of the British Studies is holding its annual conferences. The theme is the fiftieth anniversary of the publication of George Dangerfield's *Strange Death of Liberal England*. The old man is still alive and will be present. I make good progress on the highways but, 20 miles from Obispo, my car breaks down. An obliging mechanic from the US equivalent of the AA helps me out but it breaks again, as I arrive at the conference at last with only minutes to spare. The conference organizer, relieved at my arrival, listens sympathetically to my plight and will "see what I can do".

It is like David Lodge's *Small World*. Surprise! Not only have the organizers flown in the warden of Nuffield College, Oxford, to comment on Dangerfield's thesis, but another Oxford don (with whom I have co-authored four books) is present to introduce me. I note that he calls me a "robust northerner" and himself "an effete southerner". I ignore that half-truth and give my lecture. As usual, talk so long there is no time for questions. This has happened so often that some Americans think this is a brilliant plan on my part to head off questions.

In the late afternoon the conference organizer, obviously of pioneering stock, has done a dozen errands for various people and now turns up with a spare car for me and a specially-commissioned Volkswagon mechanic to work on my car. The grass sometimes appears greener on the other side of the Atlantic both for British and American visitors. Today, I feel it is actually greener.

Spend the evening at conference barbecue, with bagpipe accompaniment. Leave early because we have to rise at 6am for a complimentary visit to Hearst Castle, again the work of the conference Mr Fix-it. Will the car get me home?

Dennis Kavanagh

The author is professor of politics at Nottingham University. He is on leave at the Hoover Institution, Stanford, and a visiting professor at the political science department, Stanford.

Inventors get green light

by Jon Turney
Science Correspondent

University scientists will be urged to exploit their own inventions, subject to research council approval, following the final removal of the British Technology Group's rights over publicly-funded research.

The new arrangements were announced by Sir Keith Joseph, the Secretary of State for Education and Science, in a written Parliamentary answer this week. This follows 18 months of interdepartmental discussion after the Prime Minister's original declaration to dismantle the existing system.

The British Technology Group, which incorporates the former National Research Development Corporation, has had the first go at commercial development of state-sponsored research since 1950. That right is now abolished, and the job left to individual researchers and their institutions.

Sir John Kingman, the chairman of the Science and Engineering Research Council, has written to vice chancellors on behalf of all the councils to say universities will be free to make their own arrangements for exploitation. The same principles will apply to the public sector when they have been established in universities.

However, institutions will have to submit details of their proposed new arrangements to the SERC for initial approval. University proposals will have to cover a series of topics laid down by the DES. They include:

- how promising discoveries will be identified and assessed;
- how intellectual property rights will be protected;
- finance and marketing;
- royalty payments;
- incentives for the researcher.

The Government wants to see British business benefit from the new freedom and institutions wishing to sell rights to overseas companies will have to get permission from the Department of Trade and Industry.

Universities' proposals will be examined by a committee with members from the research councils, the DES, the DTI, the University Grants Committee, the Committee of Vice chancellors and Principals, and the Treasury. If they are approved, the institution will have to offer an annual progress report.

Universities will still be free to go to the British Technology Group for advice, and it will promote its expertise in the field and its potential as a source of finance. But the group will face competition from new venture capital agencies already formed to take advantage of researchers' new freedom to shop around.

Sir Robin Nicholson, the chief scientific adviser in the Cabinet Office, and Sir David Phillips, chairman of the Advisory Board for the Research Councils, both stressed the hope that the new arrangements would encourage individual researchers to be more active in exploiting inventions. Sir David said the same individual right to seek exploitation would eventually apply to employees in research council establishments.

In his announcement, Sir Keith writes: "I hope universities will seek to give the fullest opportunity and scope for researchers themselves, where they wish to do so, to assume responsibility for exploiting their own findings and ideas, with commensurate share in the benefits."

ILEA battle continues in Lords

by John O'Leary

Supporters of the Inner London Education Authority in the House of Lords will try next week to complete the safeguarding of the authority future.

Despite procedural confusion which resulted in two crucial amendments failing to be called, the Government has conceded defeat in the Lords on its proposal to an automatic review of the ILEA. It has reserved the right to restore the relevant clauses when the Bill returns to the House of Commons.

Now opponents of the Bill are preparing a new assault, this time on the restrictions the Government hopes to impose on the ILEA in its reconstituted form. Further clauses to be debated early next week deal with ratecapping, consultation with the London boroughs and the proposed ministerial veto on budgets and staffing.

However, leaders of the authority believe the most crucial blow was struck with the deletion of the review. A spokeswoman said: "This was the really important one for its long-term implications. A lot of people took it that the Government was having a go at the Greater London Council now and was paving the way to get the ILEA in a few years' time."

The proposals would have allowed the Government to transfer the functions of the authority to the boroughs by Parliamentary Order if the review was unfavourable to the ILEA. Now, unless the Commons reverses the amendments, fresh legislation would be needed, although there would be nothing to stop ministers going ahead with a review.

The full extent of the Opposition's victory was put in doubt when it emerged that only one of the three amendments had been voted upon in the debate. However, the Government chief whip, Lord Denham, undertook at a meeting the following morning that the other two amendments would not be opposed in the Lords if they were moved formally at the report stage of the Bill.

East meets West as Japanese philanthropist Ryochi Sasakawa is welcomed by Peter Jenner Hayward, the great-great-great-great-nephew of Edward Jenner, the discoverer of the smallpox vaccine. Mr Sasakawa has donated £500,000 to establish a museum celebrating the life of the pioneering immunologist at his former home in Berkeley, Gloucestershire.

Service first rate, funding third rate, lecturers told

by David Jobbins

University academics are providing a first class service with third rate funding, a union leader claims. In real terms universities are operating on 40 per cent less money than six years ago, Dr Ron Emanuel, retiring president of the Association of University Teachers, was to tell the union's council in Glasgow yesterday.

That cut has been achieved at the expense of AUT members – those forced into early retirement and those on short-term contracts that have not been renewed, he says. It is also at the expense of the salaries and working conditions of academics still in the universities.

The same number of students are being taught, the finest university education in the world is being provided and research admired and envied throughout the world continues.

The service is still being provided by academics who care about extending their subjects through research and passing their knowledge, joy and pleasure in their subject to their students.

"But that is not the right signal to give to this government," Dr Emanuel was to tell delegates. "With this government if you respond to a cut in funding by continuing to do the job well despite the cut, it merely seeks to consolidate that cut and to inflict further cuts. That is what is happening now."

Both the University Grants Committee and the Department of Education and Science in their proposals for planning, are involved in a "crude attempt to consolidate and accommodate the 1981 cuts".

"We cannot allow the past cuts in salaries and in funding to become consolidated any more than we can allow the proposed future cuts to be implemended".

If current pay levels become the new baseline, proof against all the relativities or comparabilities arguments, academics are sacked and research opportunities reduced, lecturers' commitment to the universities will come to an end, he warned. "If that happens the university system this country has enjoyed over the past 25 years will be a university system in name alone."

Council delegates are today due to discuss how to reverse the erosion of university academics' salaries.

Starring role for McCabe

Professor Colin MacCabe, who was at the centre of the Cambridge University structuralism controversy four years ago, is to leave his post at Strathclyde University to become head of production at the British Film Institute.

Professor MacCabe took up a chair in Strathclyde's English department in 1981 after Cambridge refused him a full time teaching post because of his controversial views on teaching literature. He became Britain's youngest professor of English at the age of 31.

Covenant system simplified

The Inland Revenue is to make it easier for parents to covenant parental contributions to their student children.

New simplified procedures are to be introduced from the beginning of the 1985/86 academic year, including revised forms to ease the task of making out a valid deed on covenant, and a repayment claim form specially tailored to the needs of students.

The Inland Revenue is to prepare a student pack which will include leaflets explaining the system together with all the necessary forms.

According to a survey conducted for the National Union of Students 51 per cent of students whose parents were assessed for a parental contribution already receive it in the form of a covenant.

The NUS said the announcement, by Treasury minister Mr John Moore, appeared to quash rumours that ministers had been intending to end the covenant procedures for recovery of tax paid on parental contributions.

The NUS publishes its own guide to covenanting for £1, but others are available from banks, the Consumers Association and insurance companies at higher prices – allegedly up to £5. The Inland Revenue guide will be free.

ANTI THESIS

International rhubarb fool

European unity is still a distant dream, given the linguistic chauvinism which crupted at the European education ministers' conference in Brussels last week.

A Swiss professor attacked one resolution which was "not in elegant French", and was told it had been translated from English.

The Dutch education minister complained that another paragraph was "in Latin" – it emerged that this was the Netherlands' phrase for Double Dutch. Her assessment proved accurate when the offending passage was found to have come from the Holy See.

And one of the gallant simultaneous translators, who wearily began to interject "rhubarb, rhubarb" almost created an international incident when he reported French minister Jean-Pierre Chevènement as saying: "Someone who speaks three languages is trilingual; someone who speaks two languages is bilingual; someone who speaks one language is a moron – I mean, an American."

Hard work, headhunting. The Department of Education and Science recently commissioned a firm of consultants to find a new chairman for the troubled Natural Environment Research Council, to succeed Mr Hugh Fish, who agreed to serve for a year on Sir. Herman Bondi's retirement. The agents scoured the country for a candidate of suitable scientific and administrative distinction, and their single suggestion is now before Sir Keith Joseph. It is Mr Hugh Fish.

Co-efficient backscratching

Vice chancellors may not have been very impressed with the Jarratt report on efficiency but Sir Alex Jarratt's chairmanship found great favour with University Grants Committee chairman Sir Peter Swinnerton-Dyer, who served on Jarratt.

Jarratt's recommendation for a review of the role, structure and staffing of the UGC has been accepted by the Government and who better to chair it, Sir Peter has been heard to say, than Alex Jarratt. Sir Peter of course hopes the review will show how understaffed the UGC is and support his call for more resources.

Those questions on the recent history of the Labour Party which had one of the contestants in the BBC Mastermind final floundering also kept a few keener observers of the political scene guessing.

They had been set by former Labour higher education spokesman Mr Phillip Whitehead, who has returned to television after losing his seat in the 1983 general election.

Sexcessful treatment . . .

From the sun-kissed, laid back plains of Golden Valley, California comes good news for jaded academics everywhere – the existence of the Sexual Dependency Unit, a 20-bed refuge for inpatient treatment of the "sexually addicted individual". A notice advertising the unit's activities – reproduced, interestingly, in some detail in Southampton University's *Viewpoint* magazine – explains that appropriate patients should have "compulsive, self-destructive patterns involving the following behaviours: pornography, strip shows, masturbation and (of course) heterosexual relationships". Symptoms of excessive sexual behaviour, the notice continues, include severe physical depletion, exhaustion and alienation. And we all thought it was the fresh air in sunny Hampshire.

New plea to end monkey research

by Olga Wojtas
Science Correspondent

The Scottish Anti-Vivisection Society has again urged Glasgow University to end its controversial primate research links with Pennsylvania University following the intervention of a United States Congressman.

Glasgow University's court was this week to see a letter passed to it by the society from Congressman Thomas Foglietta calling on Pennsylvania to accept an independent investigation of its head injury clinical research centre.

There has been widespread criticism of the Pennsylvania research which subjects monkeys and baboons to pressure to create brain damage. Glasgow's department of neuropathology conducts collaborative research on the animals' brains.

Congressman Foglietta, in a letter to Pennsylvania's president, says: "Although I understand the unfortunate but sometimes necessary needs of the research community to perform experiments on live animals, in this particular instance the inhumane pain and suffering inflicted on these primates appears unjustified."

Controversy over Glasgow's collaborative research was sparked off last year when the Anti-Vivisection Society obtained videotapes of the Pennsylvania experiments stolen by American animal rights activists.

The court has refused the society's offer to screen 70 hours of unedited tape. Following assurances by Pennsylvania that their laboratories had been approved by an independent group, it agreed last month that the research should continue.

However, the court is now reexamining the issue as a result of a warning by a former Glasgow law professor now at Pennsylvania that he fears there has been a cover-up by the Pennsylvania authorities.

Professor Alan Watson, who is at present in Scotland, offered last month to go to Glasgow to discuss the matter, but said this week that the university has not contacted him.

"I would like to think the court will decide to sever links with Pennsylvania," he said. "I found the tapes absolutely horrifying. There was a great deal of verbal abuse of the animals, cigarette ash was dropped on them, they were not anaesthetized. Helmets on their heads were beaten off with hammers, and baboons' ears were torn off in the process."

Pennsylvania has consistently denied that the animals were not anaesthetized, although it admits that experimental malpractice which is now ceased.

A report from the United States department of agriculture, which also to be discussed at Glasgow court, cited a very large number of violations in the animals' care, said Professor Watson.

Mr James McCargow, secretary of Glasgow's court, said Professor Watson's allegations had been taken seriously and the university was awaiting a reply from Pennsylvania president.

● Some 80 animal rights supporters from Belfast last week staged a demonstration at the Queens University medical biology sector in the latest phase of a battle to have an unrestricted finding tour of the building.

SDP proposes quality control

by David Jobbins

Universities could face tougher controls over the quality of their undergraduate teaching under an administration in which the Social Democratic Party was able to influence national education policy.

SDP leaders feel that Lindop-style proposals for a relaxation of existing controls through the Council for National Academic Awards on polytechnics and other public sector colleges are a move in the wrong direction.

Mrs Anne Sofer, who chairs the SDP's policy group on education, told polytechnic lecturers this week that the idea that teaching standards in the university were assumed excellent had survived for a very long time.

Speaking at the annual council of the Association of Polytechnic Teachers, she acknowledged the non-TUC union's view that many polytechnics were now sufficiently mature to shrug off external validation

But she added: "I have to say that . . . my own inclination would be to go the other way and try to press for some inspection and external validation of universities such as the polytechnics are now subject to.

"I see no reason why the universities should continue to enjoy quite the degree of autonomy they have had. I do not think it has been good either in terms of innovative courses, student satisfaction or standards."

The SDP's endorsement of the Leverhulme proposals for a two-year general degree followed by a further two years leading to a vocational qualification was as unpopular with the APT, which has led the fight to retain three-year degrees, as she acknowledged it would be with university lecturers.

APT chairman Mr John Dawson told the council: "APT welcomes that fact that Lindop's main recommendations follow closely the evidence presented by APT

"It is typical that the vested political interests of the local authorities and the National Association of Teachers in Further and Higher Education have attacked the report. These are the interests that have held back the public sector of higher education in our polytechnics and colleges."

Firm link-up announced for lecturers

A £1.3 million staff development project is being launched to update lecturers in further and higher education on the latest needs of industry and commerce.

The aim is to establish a network of updating centres, by forming links between colleges and local firms. Lecturers attending short courses at the centres will be briefed on the latest technological and business developments before returning to their own institutions to compile updating courses.

Local education authorities are being invited to bid for funding for the centres, which are to be established under the PICKUP programme of professional, industrial and commercial updating run by the Department of Education and Science.

Announcing the start of the scheme this week, Mr Peter Brooke, higher education minister, also revealed that the DES is examining the possibility of creating a new national scheme of industrial secondments for teachers in further education. Staff would be encouraged to take advantage of opportunities to work in industry, and demand would be matched to placements on a nationwide basis.

Mr Brooke was speaking at the launch of Local Enterprise Week organized by the Department of Trade and Industry to promote help for small firms, and which this year has chosen as its theme the need for stronger links between small businesses and education and training.

Mr Brooke reviewed the work of the PICKUP programme during the last three years, if institutions were to provide training which improved competitiveness and enterprise in industry, then lecturers had to be familiar with the latest trends in their own fields.

"This means identifying those colleges and polytechnic departments and firms which are at the forefront of change, to which lecturers can go to experience and learn about how the latest in technological and business practice," he added.

In addition to the £1.3 million being made available under this initiative teacher training grants scheme, a further £300,000 will be provided by the PICKUP programme to design suitable training courses for the new updating centres.

In a further bid to improve the skills of teaching staff in marketing their courses to industry, the DES is to publish a new PICKUP training pack later this month.

Building plans over first hurdle

by John O'Leary

Building projects worth more than £27 million were given provisional approval by the Department of Education and Science this week to that local authorities could plan ahead.

Nineteen of the projects, which are due to start in 1986-87 and 1987-88, are for polytechnics and colleges of higher education. All had been recommended for approval by the National Advisory Body, which is still waiting for a meeting with Sir Keith Joseph, Secretary of State for Education and Science, to protest about the overall sum available for capital work.

The biggest higher education projects, all of which have been allocated the NAB's maximum of £1 million, have been awarded to Sunderland Polytechnic (for a pharmacy building), Kingston Polytechnic (for an engineering block), Portsmouth Polytechnic (for a library extension) and Dorset Institute of Higher Education (for engineering and new technology). Ealing College of Higher Education gets £970,000 for a new classroom block.

All the schemes had to satisfy at least one of four criteria: meeting the needs of science and technology, adapting premises for changing teaching methods, emergency renewal and replacement of defective buildings, or rationalization of sites and buildings.

The remaining money, which will have to be raised through borrowing by the authorities themselves, goes on non-advanced further education.

Leicester Polytechnic's design students are raring to go after amassing £8,500 of prizes in this year's Royal Society of Arts bursary competition – almost double that of any other college. (Left to right) Craig Oxley, Clifford Denn, Lona Jones, Shelley Jones, Nicola Lock, Julia Wilkinson, Martin Lloyd and Anita Wilkinson.

Learning of the future

College and technical institutions of the future will be based in the workplace, which in turn must become the site of learning, Mr Geoffrey Holland, director of the Manpower Services Commission told some of the youngest leaders of industry throughout the world last week.

Speaking to the Young Presidents' Association at London University on what is needed from a modern education system, Mr Holland said institutional education and training providers would not be able to keep up.

"The reason is the rapidity of change on all fronts at once. Just when the institutions have managed to gear themselves up to address some particular technological development, the world will have changed again. It is in today's workplace that the latest technology is found. That is where the student must in part learn," Mr Holland said.

He added that the two must be linked, and that the workplace must be opened up as an integral part of any modern educational programme. Companies should be turned into learning companies.

Mr Holland however pointed out that that objective could not be achieved without investing in people on a par with other kind of investment.

Warning for lecturer who defied principal over meeting

A college lecturer who defied his principal and abandoned a class to attend a union meeting has been warned about his future conduct.

A committee of the governing body at Stockport College of Technology this week confirmed the action of the principal, Mr David Humphreys, in suspending the lecturer, Mr Tony Cottan, from duty.

Mr Cottan a senior lecturer in the college's department of building and civil engineering, was elected to the regional executive of his union, the National Association of Teachers in Further and Higher Education earlier this year.

Arrangements were made to enable him to attend his first executive meeting, which clashed with an evening class. But no agreement was reached for him to go to the April meeting, despite an attempt by Natfhe officials to bring in ACAS, the independent conciliation and arbitration body.

Seventy minutes before he was due to take his class, Mr Cotan informed the college that he would be attending the meeting, and according to Stockport officer for further education, Mr Brian Stott, there was no time to find a replacement and the students were sent home.

The following morning, Mr Cottan was suspended from duty, and accused of gross misconduct, which could have led to a fine or his dismissal.

The local authority and the principal have agreed that to avoid further disruption, the lecturer who stepped in when Mr Cottan was suspended will take the Wednesday evening class for the remaining six weeks of the academic year.

Mr Stott said: "It will mean that for the remainder of the academic year Mr Cottan will have rather a light teaching timetable but we will be able to adjust this in the new academic year."

The committee also recommended that renewed attempts should be made to conclude an agreement to regulate time off for trade union duties. Mr Stott said that although agreement had been reached locally, the package has not been ratified by Natfhe's regional council, making the lecturer's union the only one in the authority not to have a facilities deal.

Mr Ian MacKay, Natfhe's regional official for the north west, defended the authority's insistence on going ahead with the tribunal despite the declaration of a dispute by the union. "It would have been up to the principal to issue a warning without any evidence to the governors."

Union may break insurance links

by David Jobbins

College lecturers are under pressure to break a 40-year-old link between their union and an insurance company which has been a substantial contributor to Conservative Party funds.

The outgoing treasurer of the National Association of Teachers in Further and Higher Education, Mr Bill Easton, is to be questioned closely at the union's annual conference next week on the reasons for the continuation of two important business links with the Commercial Union. These are the Commercial Union's approved status under which it has special access to Natfhe's members offering discount on personal insurance, and the Commercial Union's management of the pensions scheme for officials.

Mr Tony Mitchell, a lecturer at Bedford College of Higher Education has led the campaign for the links to be ended. He said: "It is indefensible morally and totally contradictory for Natfhe to be publicly identified with a company which is closely associated not only with a political party but also with one to which in areas of policy we are so frequently opposed."

At last year's conference motions were passed opposing Government policies while in the next room the insurance company was "persuading members to part with their hard earned money in return for Commercial Union benefits".

The company which has about 20,000 Natfhe members holding its policies, has been a regular financial contributor to the Conservative Party. In 1981 it contributed £25,000; in 1982 £20,000 with a further £2,500 to the Centre for Policy Studies; and in 1983 £18,000.

In recent years smaller sums have been donated to the Social Democratic Party but last year the company decided against making any political contributions. A spokesman this week made clear that the decision was entirely due to the company's trading position and that the renewal of political contributions would be reviewed in the light of future trading results.

The involvement with the Commercial Union was first raised by Natfhe's East Anglian region at the union's conference in 1981, and in November 1982 Natfhe's national council voted to end the association. But union leaders decided to restrict their action to a protest to the Commercial Union and to detail changes in the management of the staff pension scheme.

Before the changes withdrawing the £2 million involved in the pension scheme would have led to a £100,000 loss in the face value of investments and the losers would have been the staff.

But according to Mr Easton, there will be no loss if five years' notice of withdrawal is given.

Mr Mitchell intends to press for notice of withdrawal to be given so that the connection will end by 1990. Delegates from his region have also been mandated to press for removal of approved status.

Natfhe has special arrangements with a number of other insurance companies which, said Mr Mitchell, have a "clean bill of health".

The Commercial Union intends to send a representative to the conference in Plymouth to "show the flag" as usual.

More Ulster women opt for science

by Carmel McQuaid

Northern Ireland pupils have a better A level record than their English counterparts. In 1982 22 per cent left school with at least one A level, as against 17 per cent in England.

Women in Northern Ireland are increasing their stakes in higher education and breaking free from the decades-old pattern where they opted for arts rather than science.

Ulster girls remain longer at school and are more likely than boys to obtain A levels – though a higher proportion of male pupils still go to university and pursue postgraduate studies.

These findings were revealed by Mr Jim Livingstone, a Department of Education Statistician, at a British Psychological Society conference in Northern Ireland last week.

The conference heard that while one in three girls leave school with A levels, only one in five boys does. Yet about 38 per cent of boys and fewer than 9 per cent of girls go to university. But girls are gaining ground. The 38 per cent of undergraduate places filled by 4,386 women in 1974 had risen last year to 45 per cent totalling 8,537. The proportion of women postgraduates had also increased from 26 to 31 per cent.

The subjects boys take at A level have hardly changed at all since 1974 with 37 per cent continuing to study science, 30 per cent arts and 33 per cent a mixture but girls have changed direction considerably. Ten years ago 70 per cent of girls did arts subjects, but this had reduced last year to 54 per cent with 18 per cent taking science and 28 per cent a mixture of each.

At university 28 per cent of women and 54 per cent of men study science. But this pattern almost balances if the number of male engineering students is eliminated.

The most remarkable turnabout of all, Mr Livingstone said, has been the increase made by women graduates in male-dominated occupations. Industry and commerce in Ulster are now recruiting more graduates – men and women. The 22 per cent of men who found work in industry in 1973 were joined last year by 25 per cent in ten years where women's flooding in the industrial workforce at the same period least one graduate.

Promotion case decision is delayed

An industrial tribunal has reserved its decision on a black Teeside Polytechnic lecturer who claims he was blocked from promotion.

Principal economics lecturer Mr Sukhu Ramoutar is claiming against Cleveland County Council that he failed to become a head of department at the polytechnic because of his colour. He alleges that a conspiracy was hatched to stop him getting the job of head of the business and professional studies department.

But Mr Adrian Dent, representing Cleveland county council, at the Middlesbrough tribunal, dismissed the "conspiracy theory" as "rubbish". He said there was no evidence to support the case that Mr Ramoutar was refused the job because of his race.

Mr Ramoutar, 49, of Nunthorpe, had told the tribunal he was the victim of hostile questioning at interview.

Mr Martin Mabilepsa representing Mr Ramoutar alleged that polytechnic director Dr Michael Longfield had disregarded glowing testimonials about Mr Ramoutar. Mr John McClintock, also a principal lecturer in the department, had earlier told the tribunal three economists had come to him complaining about Mr Ramoutar.

He said he was then a temporary deputy head of department and did nothing about the complaints because both he and Mr Ramoutar were in for the job of head of department.

But Mr Babilepsa put to him: "Is it not the case that you and your friends were absolutely petrified of having a black head of department?"

But Mr McClintock replied, "No, why should we be?"

The result of the case will be announced later.

Aberdeen record

A record 73 per cent of Aberdeen University graduates have found permanent jobs, according to the university's careers and appointments service. Its latest figures show that 9 per cent of those graduating last year are thought to be unemployed, with 10 per cent unemployment for arts and social science graduates, 7 per cent for applied science and 7 per cent for pure science graduates. Three quarters of those who find jobs stay in Scotland.

Keystone in a merger foundation

by Peter Aspden

The frenetic building work taking place amidst the tranquil grounds of Royal Holloway and Bedford New College in Surrey is a testament to one of the more successful parts of London University's protracted reorganization.

A key figure in the merger of the two colleges, so similar in tradition, is the newly-appointed principal of the joint institution, Professor Dorothy Wedderburn, who sees the brickwork and scaffolding on the site as a vital morale booster in a time of uncertainty.

"In a sense, the last three years have been wasted as far as academic advances go, because of all the disruption caused by the move to the Egham site. Now to be told there isn't going to be level funding and that we have to cut further is depressing," she said.

"But people have been taking it far better than I feared. They are quicker at seizing the implications of what is happening, because of 1981, and to see buildings rising all around you is very good for morale."

Professor Wedderburn sees the merger of the two colleges as an inevitable move which made academic as well as financial sense.

"It was important that we had similar backgrounds, being women's colleges originally, and there was no sense of one college absorbing the other" – a drawback, she feels, of the proposed merger with King's. "No one wants to lose their sense of identity, so the talks were going to be inevitably tricky. But Bedford and Royal Holloway had definite complementary interests, so it has all worked out rather well."

Professor Wedderburn has never been an ivory tower academic, having concentrated her academic career on the industrial implications of economics and sociology, and helping to establish courses in industrial relations, management and economics for scientists during her spell at Imperial College.

With so much time spent on merger talks during her last four years – an experience for which her six years with the Advisory, Conciliation and Arbitration Service must have prepared her well – Professor Wedderburn has found little time to think about the broader aims of the new institution.

"But I am very keen to keep faith with our origin as a women's college, by our admission mix and by seeing what we can do to attract mature women, as we have a very large potential catchment area."

Once started, her favourite themes come tumbling out: women in science, the need for "managerial" leadership ("which doesn't mean accepting the dictates of the DES") and the importance of versatility. It somehow promises to be an even busier time for the college in the coming years.

UNION VIEW

It's not all in the name

The debate around the Lindop committee's proposals in public sector validation cannot be allowed to continue as a debate on whether a polytechnic should become a university, in principle or practice, in general or specific.

Sir Keith Joseph narrowed the remit of the committee to begin with, so that it did not include universities and now the press and commentators look like narrowing the discussion still further.

The real issue that lies behind the currently renewed quest for university status is the need to break down the binary divide between the universities and the public sector.

As long as this divide is maintained then universities will continue to receive priority in funding and polytechnics and other public sector higher education colleges continue to be forced to struggle along on totally inadequate resources.

Tactically the row about name changes has been successful on one level – that of attracting attention to the discontented polytechnics.

At the same time, however, it has dealt the campaign for improved public sector funding a grevious blow by centring the debate on name changes and not on the underlying funding problem.

Ironically it reinfores the very arguments it sets out to undermine – that is somehow better to be a university than a polytechnic and simply succeeds in consolidating this view in the public mind.

It has also served to distract attention from the very real threats carried in Lindop's proposals; that of the lessening of public accountability of the public sector of higher education and the imposition of an even more hierarchical structure than already exists in higher education.

The grading of institutions into Lindop's four bands leaves those in the "bottom" bracket immediately vulnerable and attempts to accrue to those at the "top" a similar status to universities and enable them to avoid any national accountability.

There are also grave unanswered questions as to whom, and on what evidence, would make the decisions as to how colleges would be categorized.

For students, the report must be seen as a major cause for concern. The National Union of Students fought long hard battles to establish the right of the representation of student views on college courses and conditions. Through its institutional reviews the Council for National Academic Awards encouraged that representation.

If the institutional reviews are now to be abandoned how does Lindop propose to seek the opinions of students which is essential if the validation of courses is to have any legitimacy?

The answer is, of course, that there is no alternative forum proposed. Attempts to move away from public validation will discredit the public sector of higher education.

If public sector administrators believe that adopting either the titles or the unaccountable methods of the universities for some colleges, and allowing the sector to become fragmented will aid their quest for survival, they are making a grave mistake.

Mark Hatton

The author is a national executive member of the National Union of Students.

Axe over institute directors

by John Turney
Science Correspondent

The Agricultural and Food Research Council is to streamline management of its institutes as a prelude to fresh mergers and closures of laboratories. And new policy proposals from the council raise the question of a more general reorganization of research council responsibilities for the biological sciences.

The proposals are in a "green paper" launched this week by the council's new secretary, Professor John Jinks, formerly of Birmingham University. The final paper is the fruit of a two-year battle to persuade AFRC council members and institute directors that management changes are needed.

The council wants to cut the present number of 27 institute directors it has to deal with to ten or less, each with responsibility for a broad area like animal diseases, arable crops or horticulture.

The ten will join a new management board, overseeing the council's research policy. This will require difficult negotiations with the 20 or more AFRC-supported institutes which now have separate governing bodies.

The model for the new institute groupings will be the arrangements now in hand for food and horticulture, where directors are being appointed with overall responsibility for three institutes each. Professor Jinks said that in such areas, one institute would quickly become dominant, and the others would close unless there were special scientific or local reasons not to.

Even with strong efforts to attract more private funds, the council expects a reduction in income, and Professor Jinks said there must be a further reduction in institute overheads. "The worst that could happen to AFRC would be to allow the present rate of contraction to continue and end up with 26 half-empty institutes," he said.

The council already faces further closures this year when it learns the decision of the Ministry of Agriculture, Fisheries and Food on division of cuts in commissioned research imposed in this year's budget. The MAFF has to reduce its research spending by £10 million this year and the same again in 1986/87, and will divide the savings on the advice of the new Priorities Board for Food and Agriculture Research, chaired by Sir Kenneth Durham of Unilever.

Early indications are that the ministry will favour its own research effort over commissioned work. Even though the Advisory Board for the Research Councils has secured assurances that costs from redundancies and closures brought about by new cuts in the AFRC will not be borne from the research councils' science vote, for this year at least, the consequences will be very serious for the council.

In the longer term, the AFRC's policy paper points to the increasing relevance of agricultural biotechnology to areas outside traditional agriculture, like chemical and drug production, energy and wood products.

The paper questions whether the existing division of responsibilities between the research councils will permit optimum exploitation of new technology in these areas. Professor Jinks said this did not denote an ambition on the AFRC's part to expand its remit, but some AFRC officials point to the possibility of transferring the Science and Engineering Research Council's biological sciences committee to the body which is now, in the paper's words, "the largest non-medical biological research capability in the United Kingdom".

The AFRC might also be a candidate to take over some of the work now supported by the Natural Environment Research Council, whose break up is now being promoted by some scientific lobbies, notably the geologists.

A long-term view of the agricultural and food research service. AFRC. Free.

Selective policy 'may be botched'

The process of distributing research funds to universities selectively stands a fair chance of being botched, with incalculable costs in terms of excellence, the vice chancellor of Manchester University, Professor Mark Richmond, told the university court.

He said the Government's insistence on converting the British higher education system into an American style, where research is not universal, in just five years "cannot have been thought through".

"The University Grants Committee will ask for plans from universities within the next few days. These will have to be submitted by universities by November of this year. The grants committee will then have about four months to make the critical decisions," he told the court.

"I feel that there is a fair chance that the whole process will be botched – with incalculable cost in terms of excellence to our higher education system – a system that is currently the admiration of the world."

Professor Richmond, a member of the Jarratt committee on university efficiency which recently urged universities to adopt a sharper, managerial approach to planning, said he ultimately feared for the quality of work undertaken in universities.

"It seems to be a central dogma for this Government that all large organizations need to be shaken up, and from shake-ups advantages flow. The shake-up of the university system is at hand. If it develops in the way that seems to be foreshadowed it will produce much turbulence and not a little acrimony and pain," he said.

"It might lead to greater efficiency by some measures but will the quality of the output be improved at the end? I find it hard to convince myself that it is likely. Or even, perhaps, that there is a real understanding of what is at issue."

Professor Richmond said there was some cause for "quiet optimism" within his own university. "But I do not believe any university will do so well in the coming years as to escape some pretty traumatic experiences," he added.

London students joined the regular Friday afternoon picket outside the South African embassy in Trafalgar Square, London.

APT lodges representation protest

A protest over staff representation on the governing body of the institution to be created from the merger between Thames Polytechnic and Avery Hill College has been lodged with Sir Keith Joseph, Secretary of State for Education and Science.

The non-TUC Association of Polytechnic Teachers claims that staff representation from the polytechnic will be reduced not only in proportion on the new court but in numbers.

The APT believes scope for "extra constitutional influence" by the Inner London Education Authority is reduced in the merger proposal. But its national secretary, Dr Tony Pointon, has told Sir Keith that the presence of the Inner London standing joint advisory committee of teachers and officers "appears designed to add to the type of political representation which has had such a disastrous effect in another ILEA polytechnic".

The agreement of the two institutions and ILEA to the terms has been reported to Sir Keith, and the merger is effective from September 1.

The court is being expanded from 39 members to 49 – the largest regarded as workable by a steering committee established to oversee the merger. But the number of staff representatives remains at four – with the proviso that at least one must come from Avery Hill for three years.

It is this that has prompted APT's claim that academic staff representation from the polytechnic would be reduced in actual numbers.

Lecturers vote for action

by Olga Wojtas
Scottish Correspondent

Scottish further education lecturers are threatening industrial action in session if their demands on the Government's action plan are not met.

Members of the Further Education Lecturers' National Section of the Educational Institute of Scotland voted to hold a ballot, against the executive's advice, recommending industrial action unless the Government guaranteed that the action plan's popular courses would not be available in private agencies.

Mr Mike Morris, vice chairman of the section, told delegates at the annual conference that was trying to achieve the impossible. It would require immediate nationalization of publishing houses and state control of all photocopying machines.

What could be controlled was validation of the courses, and the union had already won the agreement that private agencies' modules would not be validated. Delegates also voted for a ballot on industrial action unless their class contact hours were reduced to enable staff to carry out assessment required by the action plan.

Another motion, specifying maximum class contact hours, ranging from 14 to 22 hours a week, was remitted to the executive on the grounds that it could hamstring potential gains. There was an unsuccessful attempt to have a FELNS campaign for the withdrawal of trade union support from the Youth Training Scheme.

Mr Joe Eyre of Langside College criticized the scheme as a cynical attack on young unemployed and trade union rates of pay and conditions, and said the only way it could be changed was for the trade union movement to condemn it as a fraud.

But Mr Jim Whyte of the Central College of Commerce said mass unemployment was not about to go away and the issue was not whether the scheme should continue but what conditions could do to make it worthwhile.

The FELNS also called on the Secretary of State for Scotland to set up a national development plan for adult basic education. Ms Sue Argo of Lothian Adult Basic Education said Scotland was far from providing an adequate service for adults, and it remained a very low priority in the eyes of local and central governments. Some 300,000 Scottish adults were well below the level expected of school leavers, but only between 10,000 and 18,000 were being provided for.

"Scotland is being starved of funding compared to England and Wales," she said. England had 200 times the money for development projects that Scotland had, despite having only 10 times the population.

One unsuccessful motion seeking democratic college organization called for all principals, heads of department and promoted lecturers to be voted into the post for a year at a time, and for all lecturers to be paid the same, with differentials depending only on length of service.

However, delegates voted for an amendment seeking the right for college branches to take disputes over college structure to their negotiating committee.

Appeal handout

Edinburgh University's general council appeal fund has topped £500,000 just over two years after its launch. The council's trustees have awarded some £130,000 to 15 departments and student organizations.

Too many tests spoiling the BTEC broth, says HMI

Students on some Business and Technician Education Council courses are being subjected to too many tests, according to Her Majesty's Inspectorate in a report on higher and national diplomas in hotel, catering and institutional studies.

"In one centre, HND students completed in 14 weeks some 21 phase tests, seven end of unit tests and 12 assignments. This was not untypical. This gave a very heavy load to most students and some of them complained about excess assessment," HMI says.

The report which was published this week is based on a survey of some seven institutions, six colleges and one polytechnic, carried out between October 1983 and May 1984.

HMI adds that teachers' expectations varied but on occasions were too low, judged from the generous marking of assignments. The wide variety in assessment practices also made it difficult to make reliable comparisons of students' achievements between one college and another.

The inspectorate was also disturbed to find a loophole whereby HND students could embark on the studies surveyed without any experience in mathematics.

As far as industrial experience is concerned, HMI says that course planning should be improved to ensure that students have the requisite skills and knowledge and briefing to undertake the training programme.

It adds that inservice training should include the release of teachers to industry in order that they may update their practical experience. Furthermore it says the teachers should have the opportunity to extend their qualifications so that the assessment the curriculum more effectively.

The institutions visited were Bournemouth and Poole College of Art and Design, Ingham College of Food and Domestic Arts, Blackpool and Fylde College of Further and Higher Education, Manchester Institute, Newcastle upon Tyne College of Arts and Technology, Portsmouth Polytechnic, Hereford College of Technology, and Devon College of Arts and Technology.

overseas news

Two universities planned in Cyprus

by David Keys

Cyprus – a country which has never had a university – is now likely to have two.

Both the Greek-speaking Republic of Cyprus and the internationally unrecognized Turkish Republic of Northern Cyprus are planning to create universities in the near future.

The Republic of Cyprus government is expected to announce shortly a decision to build a university – probably in Nicosia. The Turkish Cypriot authorities are considering a plan to set up a business management school which together with their existing Higher Technological Institute would constitute a two-faculty university.

Up until now, Cypriots have had to go abroad for a university education. Some 10,000 Greek Cypriot students are currently taking higher education courses in 34 countries.

It is expected that the new university in the internationally-recognized Republic of Cyprus will be built with funds supplied by the World Bank, UNESCO and countries friendly to Cyprus. The decision to build it, not yet officially announced, follows several years of work by a special Republic of Cyprus government study group.

The government will neither confirm nor deny that a final decision has been taken to build a university. However the country's director of education, Mr Stavros Philippides, says that a university may be established, and that there may be some developments in the near future.

"We want a university for all Cypriots – Greeks and Turks and all other people living in Cyprus," he said. A Cypriot university would also be open to students from neighbouring countries, he added. The first schools likely to be established would cover science and engineering and social studies.

The decision to launch a university in the Republic of Cyprus is likely to considerably increase the number of unemployed graduates. At present the republic has an unemployment rate of only 3.5 per cent – but most of the jobless are graduates.

Despite its lack of a university Cyprus has one of the highest percentages of graduates in the world. At present 43 per cent of Greek Cypriot university students study in Greece, 21 per cent in the United States, 12 per cent in the UK, 7 per cent in Germany, 3 per cent in France and 5 per cent in the Soviet Union and other Comecon countries.

In the Turkish part of the island – the Turkish Republic of Northern Cyprus – the authorities recently received a senior eduction official from Turkey, Mr Ilsan Dogramaci. It is understood that he suggested creating a business management school which would be linked to the existing technological Institute to form a university.

The idea is thought to have Turkish government support – but some minority party politicians are demanding the creation of a purpose-built university.

If the business school and technological institute link-up was implemented it would have a split site because the technological institute is located in Famagusta while the business school is likely to be built in a disused hotel or other building in Kyrenia.

France to impose new restrictions on foreigners

from David Dickson
PARIS

The French government is to tighten up the conditions under which foreign students are allowed to live in France.

In future, foreign students will not be allowed to take on temporary work during vacation during the first year of study and will only be allowed to do so in their second and following years if they can produce documentary evidence confirming that they are taking an approved university course.

In addition, students will only be eligible for temporary residency permits (*cartes de sejours*) in France if they can prove an income of at least Fr1,800 (£156) a month – a 20 per cent increase.

As originally proposed in a circular from the Ministry of the Interior published last September, the new regulations were to have been even tighter. For example, all foreign students would have been required to present the police with evidence of the "reality" of their university studies, such as certificates showing that they had taken the necessary exam.

The government claimed that these regulations were necessary to prove that those allowed to live in France were genuine students. It argued that many foreigners were using the student status to get round restrictions covering immigrant workers.

The new rules created however, a substantial protest not only from Organizations representing the interests of different groups of foreign students in France, but also from university teachers. They argued that it should be up to universities alone to determine whether a student's course was genuine, and that they should not be required to operate as a form of immigration control.

In one instance, a student in Lyon received a letter from the local police station asking him to submit within one month photocopies of all diplomas received since entering France in 1978 and confirmation from the educational establishments attended of the marks obtained in all exams taken since then.

A letter sent two weeks ago to the Minister of the Interior, M Pierre Joxe, from 50 prominent academics and 18 foreign student organizations argued that a process which allowed individual students to be assessed anonymously whatever their country of origin, was based on one of the fundamentals of democracy.

Following these protests, M Joxe announced that the requirement for documentary proof of university studies would only be applied to students who took on temporary work during their second and subsequent years in France.

Furthermore, he has agreed that the minimum resources required of Fr1800 a month will be reviewed by the ministry of national education in consultation with representatives of student organizations.

Kenyan students face clampdown

from Wachira Kigotho
NAIROBI

The University of Nairobi has brought in tough regulations to prevent future demonstrations and class boycotts on the main campus.

The University of Nairobi main campus reopened on April 22 after the government ordered a two and a half months closure following a week of unrest in February that led to a clash with police. During the confrontation one student was killed and others injured including 32 policemen.

The crisis was triggered by the university administration's decision to expel three student leaders and withdraw scholarships from five others. The climax was the arrest of 19 students, including the former chairman of the Students Organization of the University of Nairobi (SONU), Mr Julius Mwandawiro Mgangha, who was enrolled as a postgraduate in the department of African languages and linguistics.

During the closure the government took the opportunity to charge the 19 students with various criminal activities. Fourteen who had commandeered a university Land-Rover to seek financial assistance from Kenyatta University College were found guilty of unlawful use of a university vehicle and each sentenced to six months imprisonment.

During the hearing their lawyers withdrew from the case, alleging intimidation from the court. The four advocates representing the students claimed that the court had changed the hearing dates without consultation and left them with insufficient time to prepare the case for the defence.

The presiding senior resident magistrate, Mr S. E. O. Bosire found Mgangha guilty of convening four illegal meetings at the university and jailed him for one year and fined him Sh5,000 (£225) for taking part in unlawful assembly. Three others were fined Sh5,000 each for the same offence while another was acquitted.

Delivering the judgment, Mr Bosire castigated the police witnesses for being inconsistent and said he suspected they were not sure of what had happened during the crisis. He commended the vice-chancellor, Professor Joseph Mungai, who he described as an honest witness. Professor Mungai denied having seen students throw stones or having heard a police officer reading the Riot Act to them.

One of the charges against the four students was failure to disperse after the Riot Act was proclaimed by a police officer. Two university administrators denied having heard the proclamation.

Immediately the students reported for the university's reopening they were asked to sign a document containing new rules governing their conduct and discipline. In future it will be an offence for students to convene, organize or participate in unauthorized gatherings. Demonstrations or processions at the university have been banned unless authorized by the university administration.

Tailored in accordance with the University Act, the new rules empower the university council to suspend a student immediately pending disciplinary action if he or she has been engaged in classes boycotts, damage of university property or assault of teaching staff. Students convicted for criminal offences will face the same fate and perhaps eventual expulsion.

The document noted that invitations to visitors, including government ministers, diplomats or other personalities have to be channelled through the university authorities. The new regulations have to be ratified by the senate.

The new rules stipulate that correspondence with the media should bear the student's private address. From now on the dean of students will handle all correspondence affecting student business with representatives of foreign governments.

Tax officers blow the final whistle

from William Norris
WASHINGTON

The universities of America, ever-hungry for funds, may be about to lose a lucrative source of revenue. The tax collectors of the IRS – a daunting body of men who nailed Al Capone in days gone by – now have their beady eyes on the campuses.

What has been going on is quite simple. In order to attract charitable donations, the universities have been offering incentives. George Mason University in Virginia, for instance, has a splendid indoor sports facility called the Patriot Club. It boasts two running tracks, racquetball courts, a gymnasium and sauna. For an annual payment of $300 to $600, donors can have full use of the facility, which they share with the state-run schools 15,000 full and part-time students.

The point is that the donation is fully tax-deductible, which makes it a very attractive deal. This year the Patriot Club expects to raise $185,000, which will be devoted to athletic scholarships.

A similar deal is being offered by George Washington University, where a five-year tax-deductible pledge of $1,000 will buy membership of the President's Club. Athletic privileges can be added for a further $400 dollars a year.

At the University of Maryland, donors cannot buy athletic privileges, but they can join the Terrapin Club which offers good seats at sports events and priority parking. For $100 they can join the university's Century Club and use the library.

Other universities are renting out dormitory rooms in summer, and allowing outsiders to use their computer facilities. "It's the new trend in fund-raising – you get nothing for nothing," says Mr Alan K. Srebnick, director of development for athletics at George Mason.

But that, say the IRS, is exactly what you should get if you make a tax-deductible donation. Otherwise, according to Robert McIntyre, the federal tax policy director for Citizens for Tax Justice: "It's not a contribution, it's a scam."

Federal tax rules state that anything of value obtained in return for a donation reduces the amount of the donation that can be deducted from income taxes. And the IRS is now preparing to enforce the distinction between a good cause and a good deal.

Though an attempt to crack down on university clubs that offer a spot on the waiting list for choice seats at football games to people who give tax-deductible donations to an athletic scholarship fund has been suspended after angry protests, the taxmen are not giving up. The men who cornered Al Capone are unlikely to be frightened off by academic wrath.

Medics erupt over exam failures

from Barbara von Ow
MUNICH

Protests, strike calls and charges of manipulation are running high in West Germany after nearly half the country's medical students failed to pass the preliminary exam this spring.

Some 5,000 medical students staged a demonstration in Bon earlier this month, blaming the health ministry and the Mainz-based institute that sets medical exams for the "exam disaster".

The Association of German Students called on the country's 30,000 medics to stage a nationwide warning strike this week to protest against the "scandal exam" and health ministry plans to make medical tests even more difficult.

Student groups have been running a storm of protest ever since it became known that a spectacular 42.8 per cent of this year's 5,675 medical candidates had failed the exam. In some cities, such as Hanover, Bochum and Essen, the failure rate was above 70 per cent. In all cases, physiology proved the biggest stumbling block, with students answering a poor average of only 24 out of the 60 questions posed.

A number of groups, including the Conservative circle of Christian Democratic Students, has charged that the results of the exam were manipulated in a bid to stem the threatening tide of medical doctors in Germany. According to medical forecasts, as many as 34,000 may be redundant by the early 1990s.

Health insurance companies and medical associations have called on the Bonn government to take measures to counter the soaring number of doctors However, they have rejected allegations that they were involved in manipulating the preliminary exam results.

Criticism has centred on the academic at the Mainz institute responsible for setting the physiology test, Professor Gerfried Gebert.

A number of former colleagues, who left the institute in protest against its exam procedures in 1982, have alleged that several of this year's exam questions were controversial. Gebert has rejected the accusations as absurd.

The students still hope that the results will be revised upwards as in 1981 when a total of 56 per cent of all candidates failed the preliminary exam and a special commission found grave mistakes in the test.

This time, however, the health ministry seems hardly inclined to order an inquiry. Instead, it has declared that the test was carried through according to the legal rules.

Chinese adopt a careful psychological approach

by Geoffrey Barkings

Psychology, which was first introduced into China in the 1920s then vehemently rejected as a harmful bourgeois pseudo-science and disappeared almost completely during the cultural revolution of the 1960s, is coming back into fashion.

But the development will be shaped carefully and deliberately to fit in with the principles of Marxist-Leninist thought by senior researchers.

The establishment of the Psychological Association of Scolar in Peking 18 months ago to coordinate development, psychology courses being offered at all major universities and graduate schools, is a clear sign of the new approach.

The big difference, according to Jing Qicheng, president of the National Association of Psychology, is that the subject is now considered "not only as a pure science but also as necessary for China's modernization".

The NASP's first short courses for teachers, social workers, trade union and women's federation officials began in Peking in March this year.

About 200 students a month receive lectures and instruction from professional psychologists and researchers in areas like educational and child psychology, social psychology, abnormal psychology, mental health, counselling and psychotherapy.

One of the main aims of the courses is to ease the problems caused by a severe shortage of trained professionals in the field. At the moment China has about 1,000 professional psychologists and researchers, and university departments are now producing around 100 graduates a year.

Li Wenzheng, deputy president of the Peking branch of the NASP, said there was a desperate need for more training. "For example, too few doctors are able to combine psychological and medical methods in treating patients with psychological disorders. Chances for recovery are slight for such patients treated with medicine alone.

Li Benzheng, a senior teacher at the Central Education Science Institute, has joined with other senior psychologists to set up a field counselling service in conjunction with the Women's Federation of China to offer advice to women who are suffering from stress or psychological problems.

Psychological theory in China is still in its infancy however, according to Li Meige, a senior researcher at the Chinese Academy of Sciences Psychology Institute. And it remains to be seen to what extent a deterministic, Marxist-Leninist approach will allow psychological research and understanding to progress beyond the behaviourist school of thinking.

overseas news

Equality charter debated

Two very different human rights meetings opened in Ottawa last week. In the national conference centre, representatives of the 35 signatory countries of the Helsinki final act convened in closed session to review their own and each others' human rights performance.

Opposite, in the Chateau Laurier Hotel, the Canadian Association of University Teachers were discussing the practical implications for higher education of Canada's new Charter of Rights which became law last month.

The Charter of Rights forbids all forms of discrimination, in particular discrimination in employment by age or sex. The charter was passed in 1982, but the three-year moratorium was set to allow federal and provincial legislation to be adjusted accordingly. The charter finally came into operation on April 17, 1985.

The two main issues for the CAUT meeting were the abolition of mandatory retirement and the hiring of women faculty members. Since 1979, CAUT has been opposed to mandatory retirement, and the Ottowa meeting overwhelmingly accepted (by 73 votes to 2) a set of guidelines which, while admitting the concept of a normal pensionable age at 65 (thus allowing academics to plan their financial futures), allowed for early retirement without actuarial penalty and for academics to stay on beyond pensionable age, so long as they are able to carry out their teaching workload.

Tenure should be extended beyond pensionable age, while provision should be made for part-time contracts for those older academics who no longer wish to tackle a full-time teaching workload.

Although the abolition of mandatory retirement might be thought to threaten promotion prospects of younger academics, the Ottowa meeting produced few objections on this score. It has been generally accepted that early retirements will balance out the "Methuselahs" who wish to stay on.

Female hiring policy, however, has been a far more controversial issue in Canada for years. A CAUT publication of the late 1970s drew ironic attention to this with its title *But Can She Type?* In general, a CAUT spokesperson admitted at the Ottawa meeting, women tend to be hired lower down the academic ladder and under less favourable contracts.

In view of budgetary restrictions on university spending, the charter is unlikely to result in a sudden rush of female hirings. However, in the case one of the most blatant offenders, the University of Western Ontario, where no female faculty members have been hired for the last four years, an arrangement has been made to hire a limited number of women faculty members immediately, in anticipation of expected retirements over the next few years.

Financial problems could also affect implementation of the Charter of Rights as regards access to higher education for the disabled. Wheelchair ramps and reading machines for the blind do not come cheap. Under the Charter of Rights, however, universities who fail to provide such facilities are liable to be taken to court.

Evaluation committee starts work

from David Dickson

PARIS

President Francois Mitterand last Friday opened the inaugural meeting of a new committee which has been established by the government to provide, for the first time in France, an independent evaluation of the performance of the nation's universities.

The creation of this new committee, whose role in providing the government with advice on how to make best use of public funds in higher education is being compared to that of Britain's University Grants Committee, was one of the more significant innovations in the new higher education law introduced by the government at the beginning of last year.

The ministry of national education announced last week that the chairman of the new committee will be the eminent mathematician Dr Laurent Schwartz, an appointment which carries some irony since Dr Schwartz, although a long-time supporter of socialist causes, was also one of the more outspoken critics of the government's law in its originally-proposed form.

The then minister of national education, M Alain Savary, was forced to make several changes in the law following widespread protests in university circles in the autumn of 1982. Much of this opposition had been promoted by the arguments put forward by Schwartz in his book *Saving The University* that the government's efforts to democratize university administration threatened to undermine the quality of both teaching and research.

Dr Schwartz's appointment as head of the evaluation committee reflects the greater emphasis on questions about quality in higher education that is now being stressed by Savary's successor, M Jean-Pierre Chevenement, as part of an educational philosophy which M Chevenement describes as encouraging "republican elitism".

The government hopes that concerns in the academic community about being placed under external scrutiny will be softened by the fact that nine other members of the 15-strong committee have each been appointed on the recommendation of sections of either the National Council of Universities (Conseil Superieur des Universities) or the National Centre for Scientific Research.

Individuals appointed in this way include a former chief vice president of the Conference of University Presidents, political scientist Jean-Louis Quermonne, and the physicist Pierre Agrain, formerly secretary of state for research under the previous administration of President Valery Giscard d'Estaing who now works with the electronics company Thomson.

The main function of the new committee will be to perform a regular analysis of the activities of universities "in the general framework of their scientific and educational policies". This will include an evaluation of the performance of contracts passed between individual universities and the government, as well as the award of higher degrees.

The committee is expected to spend a substantial proportion of its time making site visits to individual universites, and has been given the power to call in outside experts and to set up study groups on particular themes.

It will prepare an annual report which will be publicly submitted to the president, summarizing both the strengths and weaknesses that it has found in the university system.

The fact that President Mitterand personally agreed to address the first meeting of the committee last Friday is taken to reflect his personal desire, like that of M Chevenement, that the government should pay closer attention to academic quality in universities than it has done in the past, and that in future it should explore ways of linking educational performance to the level of public support that individual universities receive.

Such ideas have already generated considerable concern within the university community. Dr Schwartz has himself previously argued that, in order to be effective, any system of external evaluation carried out on behalf of the minister of national education should also be "a dialogue between universities and the ministry, and not only a judgement, a list of demands or a prizegiving".

Views differ on West German law change

from Barbara von Ow

MUNICH

Widely divergent views on the Bonn government's controversial plans to amend the federal university law became apparent at a special three-day hearing staged by the Bundestag committee for education and science earlier this month. Over 50 representatives from higher education, industry and the trade unions appeared before the committee to discuss the draft amendment submitted by education minister Dorothee Wilms in 1984.

The draft law, which the government would like to get through parliament before the summer break, aims at boosting the autonomy and competitiveness of German universities. Apart from abolishing the comprehensive university as a binding organizational model and strengthening the professorial vote in university panels, it also seeks to facilitate the use of "third means" from industry in academic research projects.

Reaffirming the rector's conferences line, President Theodor Berchem warned against making too many far-reaching changes in the present law which could threaten the all-party consensus on higher education policy achieved in the 1970s.

The only word of real enthusiasm, naturally, came from the Professors' Association, which, representing over half of the country's 22,000 university professors, welcomes the strengthening of their role in the higher education system.

By contrast, the Union for Education and Science, backed by two left wing student groups, demanded a complete withdrawal of the government draft which they criticized as undemocratic and one-sided. The Association of German Students even announced a revival of the student revolts of the late 1960s.

Much of the criticism focused on the issue of "third means" from industry, with some left wing groups claiming that the government was institutionalizing "secret research towards intensifying weapons techniques and increasing the militarization of science".

Other criticisms from student groups centred on plans for mandatory interim examinations, aptitude tests for admission at universities and possible "elite classes" for specially gifted students.

Sibelius: inspired

Celebrating the land of heroes

from Donald Fields

HELSINKI

As the reemergence of worldwide interest in the music of Jean Sibelius continues, Finland is in the throes of special celebrations to commemorate the Kalevala, the national epic that did so much to inspire the great composer.

This year marks the 150th anniversary of the compilation of the first set of runes about a northern land of heroes, garnered by the versatile physician Professor Elias Lönnrot as he rode, skiled, rowed and trekked across the eastern province of Karelia. Universities, notably Joensuu in the part of Karelia that remained unceded to the Soviet Union in World War Two, are foremost in marking the occasion. Next summer Joensuu will resound to recitals and singing related to the Kalevala by bards sporting national costumes.

With Lönnrot's portrait gazing benignly down on their senior common room, Helsinki University staff paid their own homage away from the main celebration organized by the government. The university's weekly information pamphlet has been replete with Kalevala-linked notices, and an interview with an eminent Kalevala scholar, assistant professor Anerkitta Väinö Kaukonen.

Kaukonen notes that the Kalevala was collected at a time when German scientists were claiming that a man called Homer never existed but that the *Iliad* and *Odyssey* were orally handed down and recorded by numerous scribes. A Finnish parallel was invoked by Lönnrot himself in 1833: he pledged that he would not end his work until he had an epic "corresponding to half of Homer's".

When first published in 1835, the Kalevala, "poems of the ancient history of the Finnish people", ran to 32 runes comprising 12,078 lines. The second edition, issued in 1849, contained 50 runes covering 22,795 lines.

Arrests mount as campus anti-apartheid demos spread

The anti-apartheid protests on American campuses continue to grow. More than 170 student demonstrators were arrested in California and Iowa last week, while 33 students at the University of Massachusetts at Amherst were taken to police cells after they refused to leave the office of the campus treasurer. There were more arrests after demonstrations in New York and Oregon.

Cornell University still holds the record for the number of arrests, with a further 63 students held last week – bringing the number of those arrested since protests began in early April to more than 1,000.

At Harvard University, about 200 students barricaded the door of a room were a South African diplomat was speaking, imprisoning him for more than an hour until he was rescued by campus police. "We want to demonstrate the parallel with black South Africans who are imprisoned by officials to give him a taste of what it is like," said one of the students involved.

The issue at stake is the divestment of investments made by universities in companies with South African connections, and there are signs that the demonstrations are being taken seriously by those responsible for university finance. The board of regents of the University of California, which has seen some of the strongest protests, is to make a decision at its meeting next month and has moved the meeting from Santa Cruz to San Francisco in order to give more people a chance to express their views.

At Georgetown University in Washington DC, where students last week presented trustees with a banner reading "divest now" the authorities have voted to withdraw the university's investments in companies which fail to adopt the Sullivan principles – a voluntary code of conduct under which companies pledge to desegregate their facilities and pay equal wages to black and others.

This will amount to about $2 million of the $15 million which Georgetown has invested in companies doing business in South Africa.

Lecturer held on sedition charges

A senior lecturer in the engineering department of the University of Nairobi has been charged with sedition in a chief resident magistrate's court in Nairobi.

The senior lecturer, Mr Musa Adongo, is alleged to have said that there was no government in Kenya, implying disaffection with the government of Kenya.

According to the prosecution, Mr Adongo uttered the words at Norfolk Hotel, adjacent to the University of Nairobi main campus, and also behaved in a manner likely to cause a breach of peace. The prosecution also alleged that on the same day Mr Adongo mutilated four Kenya currency notes.

The accused was refused bail due to the seriousness of the charges. Mr Adongo, who was unrepresented at the time, will be appearing before the court within a fortnight's time according to the police prosecutor, superintendent Samuel Kilemi.

Bacteria in cold storage as environment case drags on

from William Norris

WASHINGTON

Though a new report from the National Institutes of Health has given the project the federal seal of approval, scientists from the University of California still have to wait before they can release genetically-altered bacteria on to a field of potatoes near the Oregon border.

The affair has now dragged on for two years, and has become a cause celebre espoused by a group of environmentalists headed by Mr Jeremy Rifkin. It centres on an experiment proposed by two Berkely scientists, Mr Steven Lindow and Mr Nicholas Panopoulos, to demonstrate that a certain type of frost-promoting bacterium, pseudomonas syringae, could be genetically modified to reduce frost damage to crops – specifically potato plants. If successful, the procedure could save farmers millions of dollars.

Preliminary field tests and experiments conducted in greenhouses near the Berkeley campus demonstrated that the frost-inhibiting forms did not harm other organisms or change the environment. Because the bacteria also have difficulty surviving in the field when competing with the normal form of pseudomonas syringae, the scientists believed that their field test, to be conducted on a remote site in Tulelake, California, would be environmentally safe.

They reckoned without Mr Rifkin, who contended in a suit against the NIH that the release of the bacteria could do irreversible damage to the environment by allowing tropical plants and insects that would normally be killed by frost to displace other forms at higher latitudes. In addition, he charged that an adequate assessment of the environment hazards had not been completed before the NIH approved the experiment.

Last May, before a district of Columbia court, Mr Rifkin lost the first point but won the second and was granted a temporary injunction. In February he was upheld on appeal, when a federal court ruled that the injunction should not be lifted until the NIH had completed an environmental assessment of the proposed test.

That has now been done. The NIH, in a 60-page report, concludes that any bacteria that might be carried away from the test site by insects, birds, or gusts of wind, would do no harm to other living creatures and would be unlikely to survive or multiply. "Even if many of the genetically-engineered bacteria survived and multiplied", the report says, "it would seem unlikely that adverse effects would result, since the bacteria already exist in nature with no harmful effects, and chemically altered bacteria have previously been released with no adverse environmental effects".

Mr Rifkin, however, is unimpressed, and claims through his lawyer that the NIH have still not done their homework. He wants a deeper study, involving ecologists and subject to public review.

Win or lose when the case goes back to court, the scientists are still not out of the wood. The environmental Protection Agency has informed them that it proposes to regulate the proposed experiment under the federal pesticide laws. The only consoling thought left to Messrs Lindow and Panopolous, fretting under yet more delay, is that frost is not likely to be a problem in California for some time.

Last Friday was the deadline for objections to NAB plans to end teacher training at five institutions, Portsmouth Polytechnic, the Polytechnic of North London, the College of St Mark and St John, North Riding College and Hertfordshire College of Higher Education. Patricia Santinelli and Peter Scott report on how they are fighting back.

Down … but not yet beaten

North Riding College's principal, staff and students reeled with shock when they discovered last month that the NAB planned to close their college, even though it had not yet had a formal inspection from Her Majesty's Inspectorate.

As a result the Scarborough-based college and its local authority told the NAB in their official response last week that since quality of provision was a major criteria, the closure should be delayed until after an inspection has taken place. This was scheduled for November.

Such an inspection is vitally important, because the last visit by HMI was in 1980 for two days, and following this the college was granted a big expansion which resulted in its early childhood provision rising from 35 per cent in 1980 to 90 per cent in 1984.

In fact the shock and anger at the threatened closure goes well beyond the college. The local authority, the college's validators, Leeds University, and the Scarborough community as well as others further afield who use the college were all stunned, and have already made their views known to the NAB.

Everyone expected the college, regarded as a centre of excellence and one of the top 20 per cent specialist primary institutions in this country, to be a leading candidate for expansion, in the light of the national increase planned for the primary sector.

As Frank Wright, the college principal, points out the shock was even greater as there had been no whisper of the impending doom – although some say the college has always been in danger because of its small numbers – and prior to the closure threat had received their inservice quota for 1986.

Which as in the case of other institutions under threat, the NAB did not offer the college any real explanation when it visited, except to add that the college was considered to be isolated and if further evidence came forth proposals might be modified.

Frank Wright points out that this isolation criterion seemed to appear like magic last September, and the college, because of being limited in its response to two sheets of A4 paper, had not been able to fully describe its vast range of links academic, professional and with the community.

The college has now done so and this completely refutes NAB's arguments. For example it includes strong academic links with both Leeds and Hull University, whose staff actually contribute to teaching at the college. In addition the college has an arrangement with Ripon and York College whereby students who no longer wish to teach, transfer on to a BA course, and staff from North Riding teach on a special needs course at Ripon's York campus.

North Riding has also developed computer courses jointly with York College of Arts and Technology, and offers substantial inservice courses for Cleveland local authority at Teesside Polytechnic. Moreover the college is used as a study centre by Open University students.

North Riding has close community links

As far as professional links are concerned, the college points out that since 1974 the county's advisers for Scarborough and Ryedale area of North Yorkshire have been based at the college, which also services the teacher's centre and houses the authority's centre for special needs.

The principal is confident that the NAB's Teacher Education Group when it meets this week will, as professionals, recognize all these points and will not let the proposal for closure go further.

Frank Wright stresses that the college, which has a large primary BEd and a smaller PGCE does not only have excellent courses but has influenced primary training. In the last two years, they have appointed no less than 12 new staff who have come straight from primary schools, but also have very good academic backgrounds.

The college is obviously not going to take any threat to close lying down. It fought back successfully in 1977 and now its college action committee, comprising staff and students, has moved into high gear ensuring that every possible avenue to foster survival is explored.

'Small is beautiful' community in danger

Two days before Good Friday the College of St Mark and St John, one of Britain's oldest church colleges with roots in Victorian London but transplanted to a breezy campus on the outskirts of Plymouth, heard that the officers of the National Advisory Body were proposing that it lose its initial teacher training.

Or, to emphasize potential rather than tradition, the shocking news came just two months before the final go-ahead would have been given to a new technology park next to the college, a collaboration with a merchant bank blessed by Plymouth planners.

For Marjons, the shorthand by which the college is universally known, is not at all *Barchester Towers*. Instead it has learnt to live off its entrepeneurial wits. When the college moved to Plymouth in the 1970s the chapel that had been planned never got built; through the jagged gap in the concrete quadrangle where it would have been you can glimpse the hutted classrooms Marjons has built for its growing number of Youth Training Scheme students, and in the next field the rapidly expanding regional airport which would be an essential for the technology park.

The news from the NAB seemed to come from nowhere. Marjons had been on no one's gossiped list of vulnerable colleges. Only days before its principal, Mr John Anderson, had been talking confidently about the future. So much seemed to be in the pipeline – the technology park, the expanding international programme (a new deal with the Malaysians was being discussed), the growing links with the Manpower Services Commission, the new network of Anglican colleges that was designed to introduce an overdue degree of planning into this part of the voluntary sector.

Now all these plans are in abeyance and these hopes frustrated. The nerve centre of Marjons today is the librarian's office which has been transformed into a smoke-filled campaign office littered with the political paraphernalia of a determined fight-back. The formal position may be only that the NAB proposal "seriously jeopardizes" the future of Marjons, but everyone knows that without its BEd students the college will find it impossible to survive.

Mr Anderson compares the college to a three-legged stool that rests on initial teacher training, inservice courses, and Marjon's work outside teacher education whether degree of MSC courses, Saga holidays for the elderly or in-flight catering from Brymon Airways.

Marjons' defence, which was delivered to the NAB at the end of last week, has three planks. First, the college denies that its "teacher training unit" is too small. Although it has not much more than 300 BEd students, the college enrols a growing number of inservice and overseas students. If these are counted Marjons's total is above the "500–600 FTE" level of viability set by the NAB.

Second, the college argues there is a very strong geographical case for its work. In a letter of support Professor Ted Wragg, director of Exeter University's school of education, says that "it would be quite scandalous if such a large area of the country were to be denuded of its initial and inservice training."

Third, Mr Anderson and his colleagues argue that to close down Marjon's BEd would lead to the progressive collapse of the college's other work. This includes two degree courses, in humanities and in recreation and community. The college is also the MSC's largest managing agent for YTS in the south-west.

But Marjons' case depends ultimately on the simple, currently unfashionable, idea: "small is beautiful." Relations between staff and students are close and relaxed. The college also commands a fierce loyalty. It is not just an institution but a community that the NAB proposal has put in jeopardy.

Of course the college does not expect to survive in some warm cocoon of inward isolation. Since it moved south-west Marjons has had to face considerable difficulties – an uneasy relationship with its big brother in the city centre, Plymouth Polytechnic, and a gnawing weakness in science.

But the college has got used to living off its wits. The quadrangle and the "small is beautiful" collegiality that it represents are important. But the gap in the quadrangle and the open view it offers on the outside world are as important in the modern Marjons.

Hertfordshire's crime and punishment

Hertfordshire College of Higher Education's major crime – to be punished by closure – is the failure to make any real progress towards forming an association" with Hatfield Polytechnic, according to the National Advisory Body secretariat's letter to the college.

The charge is denied emphatically by director Dr Derek Haslam and his staff, who say that, on the contrary, the local authority wrote to both Mr Peter Brooke, under secretary of state for higher education and to the NAB with proposals as far back as last year.

The authority's letters of March and June said that after looking at both the educational and financial implications, there was no real advantage in a merger. However it did favour the college forming the closest possible links with the polytechnic and was prepared to discuss this and common funding arrangements.

According to the authority and the college, no replies were ever received – although in September the college was assured that its 1985/86 intakes were no longer under question – until April this year when they were told they had been given zero intakes for 1986.

Since then, the college has been to the NAB to thrash out the letter's contents, but the director says no real explanation was forthcoming, except a vague idea that on balance the college should go.

The college, which is involved mainly in primary education, believes it meets all the criteria set out by the Teacher Education Group and says this was not denied at their meeting with the NAB.

Mr. R. G. Wheeler, the deputy director, says they cannot help but feel they are some pawn in the NAB's game, and that closure is but an exercise in bureaucratic virility brought on by the necessity to spill institutional blood at the request of the Secretary of State for Education.

In fact since 1972 the college has been engaged in joint work with Hatfield Polytechnic. The two institutions have established machinery for the organization, teaching and evaluation of both a part time BEd and MEd programme which could be extended to full time courses.

It feels it has good reasons to feel angry and bitter about this latest blow, the third attack since the 1970s. In 1983 its BA honours combined studies was removed by the NAB just as it was getting off the ground, and with no officers having ever visited the college. Even more galling, closure was followed by a Council for National Academic Awards report praising the degree.

Now still with no visit – except from Her Majesty's Inspectorate which resulted in a positive and supportive report on its primary BEd and PGCE – it is threatened with closure. Ironically, the college feels it could even expand because of the loss of the BA.

In fact Dr Haslam is so anxious to avoid a repeat of the 1983 events, that he has asked the CNAA to send the report of the college's BEd and PGCE straight to the NAB.

Dr Haslam says he is counting on the Teacher Education Group to appreciate these arguments. He hopes that the TEG will look very critically at the secretariat proposals and act independently. This would mean that they would restore Hertfordshire's intake and take account of its capacity for expansion.

In particular Dr Haslam hopes that the TEG will take serious note of their point by point response to the criteria. This stresses the established record of the college in both initial and inservice training. They already have a high proportion of staff with primary experience and have made six new appointments drawn directly from primary schools staff in the last nine months.

In geographical terms the closure of the college would represent a substantial loss both to new students and to teachers and schools over a wide and densely populated area.

So far the college action committee headed by Jena Clark has not taken overt political action. This will await the TEG's decision on May 24, but they have written to every local MP, councillors and all schools and inservice students, and everyone has been very supportive so far, she says.

Polytechnic angered by unpublished HMI evidence

Portsmouth Polytechnic has issued a stinging challenge to the NAB secretariat in its counter attack against accusations that its teacher training unit is not viable or flexible.

It has probably one of the most acid responses to the NAB's policy on teacher training, the polytechnic has pointed out that it seems quite extraordinary that some institutions are being closed down and at the expense of other institutions, while others are being spared closure on the basis of vague criteria which owe more to prejudice than analysis.

The polytechnic is also considerably irritated by the concept of reverse diversification to achieve increased output. As it points out this could not apply to Portsmouth, which is not a diversified former teacher training college, and does not have a large number of people who regard themselves as exiled teacher education staff.

The school of educational studies was totally taken aback by the NAB's decision to close it down since it had just been given its inservice numbers. It has both a strong recruiting BED – four applications for every place and 384 applications for the 20 places on its primary PGCE, as well as a 60 per cent rate of employment into teaching.

The school had applied for a 15 per cent increase in its number which would have brought it up to 470 full time equivalents – it was later told by the NAB that it should have applied for a much bigger increase – just below the Teacher Education Group's 500 to 600 criteria for viable units, but at a level which the polytechnic could accommodate without major cuts to its other programmes.

The polytechnic which says it has a high regard for its teacher training provision, made it clear that it would raise intakes to 600 if provided with extra resources, or if these proposals were not accepted it would hope for an expanded PGCE together with some INSET.

On viability the polytechnic has stressed that it was very surprised to find out that no cost data was available at institutional level on which the NAB could have based its concept of viability.

The unit says it has already shown considerably flexibility in transferring to primary work and in developing further education and provocational courses – all of which are endangered.

PNL makes ethnic case for survival

North London Polytechnic's department of teaching studies says it had absolutely no expectation that for the second time running in the short space of five years it would find itself on a closure list.

Like North Riding College, the department has not yet been visited by HMI – this was not due until December – and therefore any judgement on the quality of its provision cannot be based on any recent assessment. Indeed the rumour is that it is being closed simply because it is a part of PNL.

The department was one of the few institutions reprieved in 1982 after having made a strong case for the continuation of its work in training teachers from ethnic minorities, as well as its joint work with the Jews College.

It would seem that its case is even stronger now. Its closure would badly affect City and East London College with which it established the first access course into teacher training for people of Afro-Caribbean origin. At present some 31 per cent of the current first year on its primary BEd are from access courses at the college as well as from Paddington and Harrow colleges.

At present 47 per cent of the BEd intake is from ethnic minorities, and the closure of the department would create enormous difficulties for those students since it would remove the only public sector primary BEd course in the major conurbation of North and East London.

As the polytechnic points out in its response, the NAB's decision is completely at variance with the recently published Swann Report which recommended that a larger proportion of the teaching force should be drawn from ethnic minorities.

Jon Turney reports from Japan on its new policy to strengthen fundamental science

How Japan keeps one jump ahead

Do industrially developed nations grow more alike? Japan looks set to offer one of the most intriguing tests as it shifts from catching up competitors to deciding where to go, now it is edging ahead.

It is already startling to a British eye that Tokyo, culturally and geographically remote, looks superficially so similar to the great cities of the west. On the way to their current economic prosperity the Japanese have adopted western clothes, western food and, of course, western technology.

Now, the country's policymakers want to turn Japanese researchers' attention to more creative, basic research. This is partly to underpin Japan's role as an equal partner with the other industrialized nations, in science as elsewhere. But the government is equally anxious to ensure a flow of new ideas for the next generation of new technologies.

In the Japanese way, a consensus on this new direction has been building for several years. A series of reports and papers, the latest a massive statement from the national Council for Science and Technology, has mapped out the new themes for Japanese science policy and the thinking behind them.

The council, chaired by the prime minister, Mr Yasuhiro Nakasone, is the highest body concerned with science policy and hands down general guidelines for others to follow. Its latest report is its first noteworthy set of recommendations since 1977, and it notes that since then Japan has completed its move to the technological and industrial level of the other advanced countries and has made strides in tackling environmental and energy issues.

The next job, the council argues, is to strengthen Japan's contribution to fundamental science. This should be pursued over the next 10 years in three ways: promoting "creativeness" in research; making sure science and technology fit human needs; and increasing international links in research. All three will be tackled against a background of increasing spending – the paper calls for a total expenditure on research and development of 3.5 per cent of the nation's income, which would be well ahead of Britain's 2.2 per cent, and of the other industrialized countries.

This new money will be used to promote a host of areas listed in the report, mainly in the three areas most countries now agree are crucial for the next wave of technological development – new materials, microelectronics, and information technology and biotechnology. This in turn fits an overall strategy to target industrial growth on the new, knowledge intensive industries, getting away from dependence on old industries like steel and car manufacture.

However, there will be problems putting the new strategy into practice. The two main difficulties are connected: although Japan spends heavily on research most of the money (75 per cent) comes from industry, which is not too interested in spending on projects without any foreseeable return; and the nation's 130-odd publicly funded universities, the main home for basic research today, are generally poorly equipped and distant from industry.

The government will make a small contribution to the new money for basic research, but it faces tight constraints on spending as welfare bills generated by Japan's rapidly ageing population start to come in. It will have to rely on the skill of its civil servants in spreading a fondness for basic research into the nation's boardrooms.

The new job will affect the three main sources of government funds in different ways. They are the Science and Technology Agency, which has a loose coordinating role but also gave out just under 30 per cent of the £4.85 billion 1983 total; the Ministry of Education, Science and Culture, responsible for a further 40 per cent; and best known overseas, the Ministry of International Trade and Industry, which used up just 12 per cent. Each of these has its own interpretation of the way the overall policy guidelines should be implemented.

The education ministry seems the slowest to respond so far, judging from conversations with Japanese officials. The ministry won a small increase for funds for university research grants in the latest Japanese budget and Mr Hiroshi Gyoda of the department's international science division says: "We intend to induce universities to cooperate with industry." But there is little ideas yet how this will be done – beyond the present practice of accommodating industry employees in university laboratories for a year or two.

The ministry doesn't know how much industry cash goes to universities, but points to the difficulty presented by the civil servant status of university professors. This means they can only arrange personal contracts for industrial work with special permission. A visit to the education ministry leaves the impression it regards the boosting of basic research as a job for someone else.

The STA now has money to spend following the launch of the Tsukuba science fair earlier this year. The fair, a giant commercial for new technology cost the government £450 million and is one contribution to boosting national enthusiasm for science.

Creative research: Japan's £100 million a year ERATO project

Beyond that, the agency will increase research grants and already supports the ERATO (Exploratory Research for Advanced Technology) project to the tune of over £100 million a year. This is a good example of what the Japanese mean by creative research. ERATO, set up as long ago as 1981, has set small groups of young researchers to work in areas where breakthroughs could have important technological benefits – they include research on ultra-fine particles, fine polymers, better crystals and solid state physics.

The MITI has projects along similar lines for work on renewable energy resources and conservation, and the trade and industry department will play the largest role in shifting the focus of industrial research, in spite of its relatively modest research budget.

However, the MITI's approach reveals the elasticity of the Japanese language, for the department attaches a rather different meaning to "basic research" than, say the education ministry. Those British scientists who use Japan's plans to increase basic science spending as an argument to protect our science budget might be surprised to hear Mr Yoshihiko Sasaki of the MITI's technology research and information division. "When MITI uses basic research it does not mean pure science with no application." In fact, MITI's plans provide for fundamental research with definite uses, and which should be applied in industry in seven or eight years.

What the department wants is to stretch industry's normal time scale. The MITI's officials reckon industrial managers left to themselves wouldn't back research with a pay-off more than five years away. Measures to encourage them to be more adventurous include the department's new basic technology research promotion centre, which will offer loans and risk capital to firms doing research which qualifies.

So does the new emphasis in Japanese science policy simply amount to doing more of what we would call strategic research, or targeted industrial research? At the moment it is too soon to tell. But a review of the total portfolios of the three main government agencies suggests the Japanese will do a lot of other science as well.

Present plans envisage Japan having a presence in virtually every field, from fusion power through space research and particle physics to computer science and the life sciences. If only a modest proportion of this work is innovative, Japan could emerge over the next decades as second in overall scientific strength only to the United States.

Japanese plans to strengthen basic research all stress the importance of increasing international collaboration – and Britain could be well placed to benefit.

The two countries' motives will be different, but Britain's problems finding cash for research may combine with Japan's intention to build up its science base to create a common interest in forming stronger ties. It may never be easy to persuade many British scientists to spend long periods in Japan, but there is ample scope for increasing the current level of joint meetings and short-term exchanges. And there are real prospects of Japan becoming an important partner in big science projects.

Most of the work involved falls under the aegis of the Education Ministry and the Science and Technology Agency – on the more basic side of the Japanese research spectrum. The Ministry of International Trade and Industry is also officially seeking to establish collaboration with overseas researchers, but the explicit commercial aims of most of its research complicates matters.

The celebrated fifth generation computer project, for example, was launched with an invitation to other countries to participate. But the Japanese have not yet decided how to permit foreign companies to take part. Although overseas concerns which maintain research centres in Japan are free to join.

Outside industry, Mr Yoshihiko Sasaki of the MITI's technology research and information division says there has not yet been a serious offer to participate from a foreign government. Officials from Britain's own Alvey programme for computer research are still keen to foster closer ties with the Japanese, but progress is slow.

The picture is freer in fields supported by the STA and the Education Ministry. In one area of current British interest, particle physics, Japan's domestic accelerator, Tristan, will soon be completed and the country is supporting a large experiment on the new machine under construction at CERN in Geneva. More Japanese interest here might help European countries reduce the burden they now bear keeping CERN running.

East meets west – to their mutual benefit

Nearer home, the Science and Engineering Research Council is keen to close a deal for Japanese use of its spallation neutron source at the Rutherford Laboratory in Oxfordshire. The State of the SERC's finances means *any* customers for the source are helpful, but SERC officials say Japan would be especially welcome as a scientific as well as financial contributor.

The signs are hopeful: Japanese scientists have already put together a £2.5 million proposal for the Education Ministry to back a neutron scattering programme and the cost includes building a detector for the spallation neutron source and funds for Japanese researchers to fly west.

The SERC's chairman, Sir John Kingman, also makes no secret of his enthusiasm for Britain to take time on the new Japanese telescope now being built in Hawaii. Astronomy is also the focus of the largest current collaboration with Japan, on the Astro C X-ray satellite, due to be launched in 1987.

Astro C is a project of the remarkable Institute of Space and Aeronautical Science at Tokyo University, which builds its own launchers as well as designing and building satellites and their instruments. A group at Leicester University is building an X-ray detector for the satellite its leader, Professor Ken Pounds, has found no more problems working with the Japanese than in other joint space missions with the United States or Germany.

Professor Pounds stresses the importance of personal contacts. He knew the ISAS director Minoru Oda from days when they both worked at the Massachusetts Institute of Technology in the US – as the Japanese are still cautious about working with people they do not know. The formal collaboration stemmed from a British visit to Tokyo in 1980 and was sealed by an agreement signed only last year, with much preliminary work inbetween.

In some ways, according to Professor Pounds, it is easier working with ISAS than with the Germans or Americans as there is much more bureaucratic paperwork in a typical western project. The language has been a minor problem, but only when English scientists go to Japan. The dozen or so Japanese who have spent time in Leicester all spoke English and the relevant Japanese papers are all in English language journals.

In fact, Ken Pounds admits ruefully that the British work with the Japanese much as they do with other nationalities – English is the working language and some team members may speak a few words of the foreign tongue to help bridge any gaps.

Britain should have the advantage, with the US, in joint work with Japanese researchers as they are eager to learn English, according to Hiroshi Gyoda. English is even used when Japanese work with French or German scientists, with whom they are also developing strong links.

Apart from the scientific advantages, the agreements Japan is now signing with other European countries suggest that if they do not develop all the links they seek with Britain, they will go elsewhere. The French are working with Japan in oceanography and biotechnology, for example.

Biotechnology is also one subject of a memorandum signed following the last visit of an SERC delegation to Japan, along with space and molecular science. There have so far been two Anglo-Japanese meetings in biotechnology, one in each country, but the strong commercial interest in the field may hinder stronger collaboration.

Other areas worth pursuing, according to the memorandum, including robotics, lasers, biophysics and neutron therapy for cancer, but most of these are still at the level of exchange of information.

There should also be scope for work with Japan in the environmental sciences. The new Japanese policy stresses the importance of international approaches to global problems like acid rain, rising levels of carbon dioxide in the atmosphere and expansion of the world's deserts. These are also areas where Britain has supported research in the past, although with the exception of acid rain they are not such high priorities today.

Finally, the Japanese are keen to establish discussion of the social issues raised by development of science and technology – from in vitro fertilization to technological unemployment – and they may make an impact on the international scene here too. Next month, the Council of Europe's sixth parliamentary and scientific conference will be held in Tokyo, focusing on these issues.

Many leading European scientists will attend and Britain is sending a heavyweight official delegation including Mr Peter Brooke, under secretary of state for higher education, and Sir David Phillips, chairman of the Advisory Board for the Research Councils. Sir David, for one, will stay on in Japan after the three-day meeting and will no doubt be hoping to judge for himself if the shifts in Japanese priorities in science offer scope for more work with the British research councils.

Keeping track of the rising sun

The Japanese have long been avid consumers of information about western research. Now there is growing interest in Britain in keeping track of work in Japanese laboratories, and it is possible to find out about much of the country's science and technology without going there, in spite of the language barrier.

The British Library is building up its services for those interested in Japan and the leading division and the science reference library in London now hold over 4,000 scientific and technical journals from Japan. Even this is less than half the total published.

Around 500 of these are in English, but the library staff stress there is no truth in the common assumption that everything interesting from Japan appears in English. On the other hand, their experience suggests much can be gleaned from diagrams and English abstracts in Japanese papers. Failing that, the science library offers a linguistic aid service to help enquirers get the gist of a paper to see if it is worth paying for a full translation.

The British Library's journal holdings are clearly being used – requests for help with Japanese now exceed all other languages except Russian; three quarters of British researchers answering a Japanese government sponsored questionnaire said they had used information from Japan during the last two years.

The British Library has also just started running seminars on obtaining Japanese scientific and technical information and the proceedings of the first of these, held late last year, have just appeared. The importance the Japanese attach to increasing exchange of information is shown by the fact that the country's science minister, the Hon Michiyuki Isurugi, insisted on dropping in on the seminar during a visit of Britain he made at the time.

The Japanese have also just made their major science research database, run by the Japan Information Centre for Science and Technology, available on-line overseas. As part of their effort to enhance international collaboration, the government will pay to translate this database into English.

Truth about full-cost fees

British Council statistics reveal the real damage done by policies on overseas students. John O'Leary reports

Any doubts about the continuing effects of full-cost fees for overseas students should be dispelled by the British Council's latest statistics on the subject. They provide a timely reminder that year-on-year comparisons often disguise a true picture. Enrolments of foreign students may have bottomed out in public sector higher education, they may have turned the corner in the universities, but the total is still more than a third down on the beginning of the decade.

The peak year for overseas students was 1978/79, but the following year offers a fairer base year as the last before the introduction of full-cost fees. Then there were 88,000 enrolled in universities, polytechnics and colleges. By 1983/84, the year covered by the new statistics, the total was down to 55,600, a fifth year of decline.

Partial statistics for subsequent years suggest that 1983/84 heralded the start of a more stable phase of enrolments, with the universities beginning to recover, especially on postgraduate courses, and the polytechnics also showing signs of throwing off the decline. The main victims of the decline remained in the further education sector, where the drop reached 70 per cent over five years.

Ministers appear to believe that lower enrolments on non-advanced courses are at least acceptable, if not desirable. Mr Timothy Renton, junior minister at the Foreign Office, in a recent speech to the London Conference on Overseas Students, suggested that developing countries had improved their own provision particularly at the O and A level standard, and no longer needed to send so many students abroad as a result.

However, the British Council figures show a relatively small number of foreign students on GCE or SCE courses. And, as the council itself points out, those who are on such courses are often here learning English or getting the necessary qualifications to move on to higher education. Their absence is likely to show itself in future years' enrolments for the more advanced courses, which are considered suitable for overseas students.

In fact, many of the students who previously joined the further education sector were on just the kind of technical and vocational courses developing countries need. They may not have been the influential figures sought for the diplomatic or trade-related support schemes, but they did fit the developmental criteria in many cases.

Was there much indication in the new figures of success for the Pym Package's range of targeted schemes. It was only the first year of operation for the £46 million package and not all of the schemes were under way, but there is little evidence of the beginnings of a change of direction. Of the three top-ups enjoying special schemes, for example, Hong Kong did send substantially more students, topping the league table of senders. Cyprus also showed a healthy increase, but Malaysia actually sent 800 fewer students, consuming the dramatic decline which began in 1979/80.

The Foreign Office is currently drawing up its own table of countries whose students benefit from the plethora of different schemes now available. It is likely to show that the developmental aims of the Pym Package are being fulfilled to some extent by the preponderance of Commonwealth countries at the top of the list, but crucial areas for future trading links are still being missed. The British Council's commentary to its statistics cited the Pacific Basin as the object of expansion in the United States, where enrolments from Malaysia, China, Korea and Indonesia have risen faster than anywhere in the world.

Not so in Britain, where the number of Indonesian students reached 276 in 1983/84, compared with more than 6,000 in the United States. Even now the council estimates that there are only 600 Chinese students in Britain, compared with some 15,000 in the US. Indeed, although the rise is not reflected in Government sponsorship, the biggest leap in 1983/84 was in Libyan students, whose numbers rose by almost 50 per cent.

The global picture has changed considerably since 1983/84, with Australia now introducing more rigid quotas for subsidized places, some Canadian provinces imposing big fee rises for foreigners, New Zealand relaxing its policy and now France introducing new restrictions for entry to courses. But there is no doubt that the trend in Britain of continued low enrolments is running counter to that in many industrialized nations.

Some other governments, notably in Japan and the United States, have made it clear that they want to encourage further expansion in student exchanges because they consider it a good investment in trade and diplomatic terms. Japan is a particularly intriguing example because of its assumed indifference to what has become known as cultural diplomacy. Now it considers an expansion of its overseas student population from 10,000 to 100,000 an important part of its strategy to maintain its trading supremacy. Industry and other private sources are being exhorted to fund 90 per cent of the expansion, which is expected to take place over the rest of the century.

The Japanese ministry of education has drawn up a detailed plan to provide an information service in countries important for trade or raw materials, giving speical training for teachers, administrators and welfare officers, and providing bridging courses in English prior to the introduction of Japanese Tax Concessions will be offered to companies participating in the initiative, especially for employing students through subsidiaries on their return home.

Such a development, together with the rapid expansion of indigenous higher education in large potential sending countries such as China and Indonesia, will further expand the range of options available to students wishing to go abroad. They are already shopping around, rather than looking automatically to the traditional host countries, assessing cost and the quality of provision, as wholesale shifts of allegiance in recent years indicate.

The council statistics and subsequent surveys show that any hopes of a substantial return to Britain as the natural destination for large groups of students are probably misplaced. Stories of widespread dissatisfaction with the variable quality and growing cost of higher education in the United States are not yet borne out by the figures. And even the swift changes in comparative costs brought about by the rise of the dollar and decline of the pound appear to have had only marginal impact up to now.

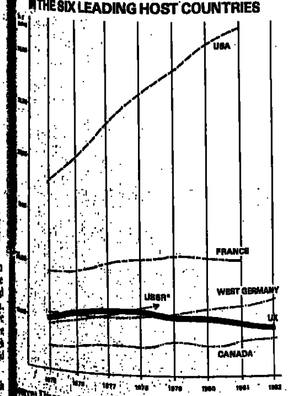
Vigorous, if controversial, efforts by many universities to retain their share of the overseas student market have joined with the various support schemes to arrest the decline in enrolments, especially at postgraduate level. These are likely to be supplemented by an expansion of the British Council's overseas recruitments and counselling service for universities and polytechnics. Many universities simply cannot afford their numbers to drop and are anxious to increase their numbers of fee-paying customers. Even now about one third of university postgraduates are oversees students.

Fourteen universities and three polytechnics had more than 500 students paying overseas fees in 1983/4, led by Oxford and Cambridge with 1,000 each and the various colleges of London University with 6,000. St David's Lampeter, and the small, specialist schools excepted, all the universities had at least 100 students paying-full-cost fees, representing a significant contribution to their finances.

But there is no likelihood of the graph of overseas enrolements turning sharply upward while present Government policies persist. Nor is there any indication that ministers are anxious that it should. The review of policy promised at last year's meeting of Commonwealth education ministers hardly seems to be taking place. Only the Overseas Development Administration, with its hopes for a scheme to assist private students in the third world, shows any sign of fresh thinking on the subject.

Instead, the Government is content to muddle on with a slimmed-down Pym Package. The new statistics suggest that this may be enough to deflect much international criticism and maintain overseas student numbers at their present reduced level. But it is unlikely to fulfil the Government's declared aim in trade, diplomacy or development. Recruitment from the poorest countries continues to decline, while the new approach has a long way to go in reaching new trading partners or keeping up with the previous spectacular record in educating future heads of state.

OVERSEAS STUDENTS IN THE SIX LEADING HOST COUNTRIES



Unesco statistics, USSR statistics not available

Comparative totals for countries having the largest numbers of students and trainees in universities and the public sector

	1983/84	1982/83	1981/82	1980/81	1979/80	1978/79
Hong Kong	6927	6369	6479	7311	6954	5649
Cyprus	6320	7497	9699	12491	14739	13678
Malaysia	3988	4556	5190	5287	5263	6008
Nigeria	3117	2623	2532	2936	3577	3690
Iran	2449	3056	5030	6703	6385	9388
Hong Kong (Commonwealth)	2205	2369	2386	2480	3029	3266
Cyprus (Commonwealth)	1868	2259	2062	2246	2487	2506
Malaysia (Commonwealth)	1407	976	717	720	928	1030
Nigeria (Commonwealth)	1201	1149	1074	1247	1185	1208
Iran (Commonwealth)	1145	1047	1230	1639	1841	1838
Kenya (Commonwealth)	936	762	917	1070	1199	1285
Kenya	902	1012	1062	1050	783	699

Diane Arbus's haunting image of a child with a toy hand grenade

Inner States

The American Festival is running in London throughout May featuring poetry, music, film, theatre and dance. The Barbican Centre has mounted a massive exhibition of photography. *American Images: 1945–80* "From Humanism to Formalism".

The American Indians, like all animistic peoples, feared the camera. They believed that the "taking" of a photograph meant some appropriation of the soul and uncovering of secrets in the subject best left buried. Anthropologists grew used to faces covered with hands or clothes, like guilty starlets.

Photography occupies an important place in the 20th century American arts. It combined modernity and technics with a new potential in narrative, imagistic, non-sequential, profoundly subversive and romantic. Photographs were fictions, abstract, dramatic or lyrical; they did not record reality, they transformed it. Perhaps the most original American photographer, Man Ray, eventually found his niche among the Surrealists, an alliance that seriously compromised the originality of his work.

A measure of surrealism is inherent in American life. Where the everyday surface of reality is stretched so tight and and where the rate of growth is so enormous, a measure of unreality or alternative reality is bound to show through.

The American arts differ from the European in one fundamental respect: the assumption that the imagination and its products are inherent and not transcendent, as in the traditional Mediterranean model. For American visual and literary artists, the invisible is already in the visible, not in a distinct realm. On the basis of such a premise, photography is the quintessential American art form.

It was a form that lost its innocence – and, as the organizers of *American Images* insist, its humanism – in 1945. The recording of the death camps and the burnt skin of Hiroshima and Nagasaki exerted a powerful influence on the moral and aesthetic senses of American artists, and it was significantly still photography, not moving film, that effected that change most powerfully. Images of death become the modern photographer's obsession, a mental set now known as Mccullenism but actually older: the bodies piled like cordwood at Buchenwald, the "photographic" image of Japanese citizens etched on to house walls; the jerky, stop-action death of President Kennedy.

***American Images* is concerned not with such "documentary" images but with the development of an artistic photography which grew in post-war America out of a combination of pre-war experimental and documentary work with newswork, fashionplate and papparazzi photography. The results, diverse and various, are none the less far more formalized and stylized, far less literal, analytic rather than synthetic, a remarkable exploration of our understanding of reality, narrative and meaning.**

The formal experiments of Man Ray and others survive in younger photographers like Jerry Uelsmann, Paul Caponigro and Lucas Samaras. But these have become the exception. The most original being done in the period is that which examines the line between image and narrative, two apparently exclusive categories. Joel Meyerowitz, who like Samaras uses colour, produces frames of great complexity, in "Madison Avenue and 60th St, New York", his crowds of people move through the frame oblivious to a leaping tiger in the Air India office window and, equally, to the beggar and dressed dog on the pavement. Another colour artist, Joel Sternfield, creates images which imply stories: a surreally burning farmhouse, smashed pumpkins in the foreground; an exhausted in the foreground; an exhausted elephant, *lying hosed down on the highway. Perhaps the best and most distinctive* of the "narrative" photographers is Cindy Sherman, who "stars" in her own "film stills" in situations which imply story, but which have no logical continuity. Duane Michals, drawing on the highly imagistic film making of Kenneth Anger, creates photo-narratives out of sequences of shots with accompanying text.

Portraitist Diane Arbus, a suicide in 1971, made uncompromising use of the human face, taking the tradition of photographic portrait to extraordinary lengths and raising all manner of questions about the intrusiveness of the camera and informed consent. Arbus acquired a reputation for morbidity, if not prurience.

Her picture of a Puerto Rican beauty comes to resemble an angel of death; the little boy in Central Park is bizarre and threatening; the Mittleteuropa clothes, the rheumatically knees and the hand grenade all combine with his half-fierce, half-crazy expression to stir unease; in reality, though, he was not – as people assumed – an autistic, but an ordinary boy mugging for the camera.

Many of the images raise questions about our perceptions and our "reading" of photographs. Robert Cumming makes a wry comment on our semiotic obsession in one of his twinned pictures: the title makes the point: "Zero plus Zero equals Zero/A Doughnut plus a Doughnut equals Two Doughnuts". Elsewhere he pairs a photograph of a stool with a sprayed after-image of the sort left on the retina after long, steady viewing: but isn't there also another echo of the flash effect of the atom bomb? Photography works on in the after-image left by the first flash effect. That is its great, unique power.

● ***American Images* is on show at the Barbican Centre Art Gallery until June 30.**

Brian Morton

It's time for medicine to develop as an academic discipline says C. L. Berry

Medicine's ailments

Medicine seems always to have considered itself atypical as a university subject and, in the past, had divorced itself from the normal pattern of scholarship. The teaching of medicine was a matter of apprenticeship until comparatively recently; premise of Cardinal Newman, that research was best undertaken in institutions other than universities would not have troubled most clinical schools. Research was not a preoccupation of many capable physicians despite a well developed and vigorously pursued passion for clinical observation which was responsible for significant improvements in patient care. There was, what Peter Scott called in his *The Crisis of the University* "a pragmatism and suspicion of over-abstraction".

Perhaps this very successful methodology encouraged a suspicion of the formal hypothesis/theorem mode of advancement of knowledge, because the value of this body of clinical investigation should not be underestimated; it has provided real improvements in the health of large numbers of people largely by a process analagous to erosion rather than by the development of unifiying theories. The germ theory of disease had been anticipated by Semmelweise with dramatic effects on maternal mortality and morbidity, immunization against infectious diseases had preceded the science of immunology and the incident at the Broad Street pump anticipated the development of epidemiology as a discipline.

Although formally a conservative profession medicine has always been swift to respond to scientific advance with the powerful motivation of concern for patients as its stimulus – if we consider the production of monoclonal antibodies we see a major scientific development which has provided a technique which many clinicians have already exploited.

The development of the practice of medicine is thus based on "major" science but is carried out in a day-to-day service facility, and new developments are applied in this way much more rapidly than many discoveries in physical sciences. This rapid response is made possibly by the existence of a large group of trained observers, some with a laboratory background. Few would suggest that this effective integration of frontier and hinterland is undesirable. Whatever solutions are proposed for current difficulties, this interaction of clinical care and scientific advance should be preserved.

Clearly, medical schools formerly saw themselves as a separate entity from the other colleges of the universities, but despite their specialization, they did not consider themselves different in the sense of being a higher division of learning like the "*grandes écoles*" of France. They appeared to prefer the liberal university tradition as a model and persisted with this at a time when it was begining to be questioned by the universities themselves. Perhaps that part of the liberal university concept most enthusiastically endorsed was the fostering of the profession of medicine defined as much by the expectations of society as by technological boundaries. Within this framework it may be that the successful methodology of clinical advance has adversely affected the recognition of the value of a newer methodology closely related to laboratory research in the direct sense as, for example, in the design of new drugs.

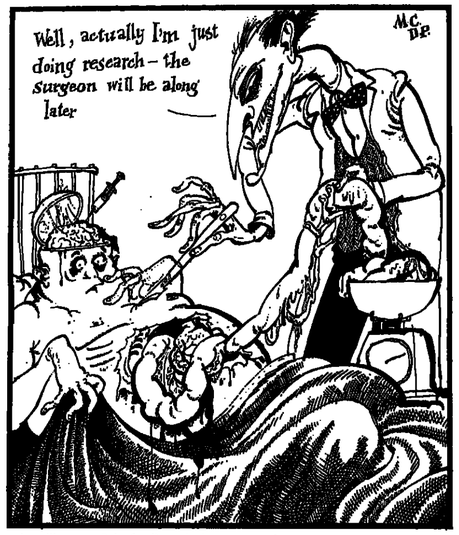
This simplistic analysis is made in an attempt to explain how so many medical schools have a multiplicty of small departments, often dependent on a substantial component of DHSS funding, consisting in archetype of a professor, a lecturer or two and a secretary. The critical mass for scientific research does not exist and the establishment of a departmental structure may discourage real groupings.

These small units usually exist to satisfy a specialist clinical need and will often perform specialist investigations. Apart from the secretary other backup staff are needed (technical, animal house, library, illustration) and are expensive in resources terms. Specialist teaching may be useful to the school, but this demand will compete with the specialist practice. However, it is in such departments that the identification of problems which will become the centre of esearch effort often occurs.

This profligacy in establishing small departments has become a real problem only in the last 10 years as resources diminish. In the universities as a whole the conflict for resources between research and teaching is a new phenomenon, arising as the resource demand of research increased, an effect more marked since 1945. Prior to this, the fact that similar characteristics were required of good teachers and researchers in the humanities helped to establish the idea of the association between the two activities.

In medicine, however, the skills required in biological research and teaching may differ considerably. The increasing mass of data that are "force fed" to students as new specialties develop has led to a separation of skills; the hand-but producing, good slide-making, television-using lecturer rightly perceived by the student as an individual who best satisfies the student requirement may not have time for research.

What are the objectives of medical schools? It is obvious that we need practical people who can deliver babies, repair hernias, care for the minor illnesses of the family and who will delight in doing so. We need rather fewer who will acquire the skills to manage, say, immunosuppressive therapy or report surgical biopsies. But we also need an elite as Ashley suggested, a group who need informal instruction permitting intimate contact with first class minds and opportunities to learn from those who have themselves changed the pattern of thought. The fact that this intuitively seems rather a grand concept for a practical subject indicates how far we are from feeling that medicine is an intellectual exercise.



In all branches of medicine it becomes harder to maintain the association of teaching and research, harder than in many other disciplines because of the service need, which will always take precedence. Cuts in funding from whatever source do not reduce medical workloads and it is research that is eroded, both in terms of time available and, in laboratories with hospital functions the erosion of physical space for research needs. There is an important distinction between medicine and other subjects because of the way practice and study interact. It is difficult to separate proper clinical practice from clinical investigation. Clinical investigation undoubtedly requires research skills and the critical assessment of therapy depends on it. New procedures are now, as a matter of course, evaluated from the time of their introduction (coronary by-pass grafts) rather than after use for decades (radical mastectomy) an indication of how acceptance of the scientific method has affected all practitioners to some degree.

Although most would agree that to be a good clinical investigator requires training in research methods, it is not clear whether these must be taught as a part of undergraduate courses, or to all students. It is probably true that all students have the intellectual ability to learn them; what Robbins feared might happen for universities as a whole has happened for medicine, the restricted number of medical school places has led to a progressive increase in the academic standards required for entry and may have devalued broader extra-academic qualities which may be of particular value in medicine.

In many undergraduate courses what is attempted is an objective defined by the Robbins committee; although practical matters may be taught they should be taught "in such a way as to promote the general powers of the mind" and specific knowledge should be imparted "on a plane of generality that makes possible (its) application to many problems – to find one in the many, the general characteristics in the collection of particulars".

In medicine these aims are sometimes pursued in classical pre-clinical courses and must then provide the general background against which a bewildering array of clinical facts are to be assimilated. Undoubtedly there is always a principle to be found but medicine is essentially pragmatic in the "what do you do with an unconscious 50-year-old woman in casualty at 10pm" kind of way. For many, this is its attraction and research is seen as an irrelevance.

However, as we have seen, the distinction between academic and technical work is blurred and must be blurred if clinical care is to be both effective and responsive to change. Perhaps a system like that in North America where students follow a four-year course of general scientific education relevant to medicine followed by a shorter medical course has its advantages – although there is a good deal that may be questioned in the delivery of medical care in the USA the contribution of American science to medicine since 1945 has been prodigious.

How may the conflicting needs and views of under graduates, post graduates, research workers, teachers, clinical practitioners and educationalists be harmonized? The unsatisfactory nature of the present financial arrangements for medical education should be altered, to allow formal recognition by the DHSS of the need for a scientific background in doctors. The department might fund more than postgraduate training by paying for more academic staff in posts not directly involved in patient care. The DES should take a fashionably holistic view of the subject and support specialist units in clinical fields.

The medical schools and colleges should attempt to define educational objectives more clearly and consider whether all students need the same course. Postgraduate training, the concern of the Royal colleges in all major disciplines should be more closely integrated with university life, we are developing a more and more rigid structure of training now requiring a total of around 14 years from the start of medical school to produce a specialist in my own subject.

Peter Scott is cautious about the possibility of the development of a new subject which might play a central role in university life as a unifying framework for the human experience as did philosophy in the late 18th century, political economy in the 19th or history in Victorian times. If medicine were a more varied study it might play this role offering kowledge to replace ill-considered opinion on subjects like the effects of radiation, diet, environmental hazards, stress and other topics that an increasingly narcissistic species love to discuss, not by providing "experts" but by ensuring that any view expressed was looked at critically.

Of course, a look at the medical scene is not encouraging. Many doctors exploit media interest in order to preempt resources or to by-pass particular administrative difficulties.

However, the study of man excites and enthuses many students in biological and other disciplines and might be exploited for the common good. It is the responsibility of those now involved with academic medicine to ensure that the subject develops, not only in terms of better health care, which, despite the pessimists, seems inevitable, but as a true academic discipline.

The author is professor of morbid anatomy at the London Hospital Medical College.

Brains above all

James Walsh has some thoughts on the Jarratt report

Just over 10 years ago, the Hudson Institute published a forecast of Britain's economic future under the title "The UK in 1980". Its findings were conveniently summarized in one succinct paragraph:

"The real economic condition of Britain, then, is one of diminishing competitiveness, deteriorating balance of payments and declining standards of living. . . Unless heroic efforts are made on a national scale there will be . . . an insidious and protracted process of loss of real national income and shrinking personal welfare. This is a perilous situation and all the more so because Britain as a whole refuses to face the facts."

When it was published, the survey was greeted (insofar as it was greeted at all) with scorn, derision and a certain bewilderment. Hadn't things got a lot better since the war? Weren't we now in the successful EEC? Above all, wasn't there "the oil"?

At the time also we had the best university system in the world. An OECD survey published about that time, said sir Frederick Dainton, in a notable lecture, proved it by the use of scientific and cultural (though not engineering) indices. What is perhaps more, we all believed it ourselves. And certainly overseas students, flocking in embarrassing numbers from all parts of the globe despite differential fees, proved it also.

There were those of us who knew ten years ago that such a thing could not last. It was a delusion to expect that the worst industrial management and the best university system could exist for long in the same environment. Britain was an industrial and trading nation and if she couldn't produce the wealth, the universities would inevitably suffer. We expected that.

What took us by surprise in our naivete was that there appeared those who, in Dr Johnson's phrase, mistook subsequence for consequence. The universities *had* declined. More *had* expanded in the 1950s and 1960s and the nation *had* meant worse. Perhaps it was all the fault of the universities!

The Jarratt report contrives to be both a strategic and a tactical blunder on the part of the leaders of the university system and it is a pity that a number of distinguished university people should have put their names to a document which will place a weapon in the hands of their enemies on the left as well as the right of the political spectrum.

First there is its minatory tone – probably for more significant than all its other faults put together – transcending individual personalities. Simply, because everyone has now realized that our wealth depends on industry does not, one would have thought, entitle the representatives of the dismal performers in that field to lecture the excellent performers in another. The tone of the report indicates that at the deepest levels the leaders of universities think that universities are responsible for our national failures and seem astonished that universities are not being treated as the scapegoats they are. Universities are not responsible for our national failures and never ending – and this bodes ill for the facing of facts for which Hudson pleaded.

Second, the report finds fault with universities – and to be sure there are faults – but they are different from the exceptional failures and abnormal follies to which Jarratt draws attention. The main fault as expressed by Jarratt is that universities are not like businesses and they don't plan like businesses. They have too many committees and nobody is the boss. Much of this is true and much of it is also irrelevant. We aren't businesses; we aren't armies, and we aren't parliaments either.

Things have been and are wrong with the universities. They failed in the early 1950s to see the need for the necessary expansion which had to be urged upon them by a then benificent government. They were snobbish – almost disastrously so – about technological education. They grew away from their roots in the community (although the main reason for this was to avoid local authority control).

These faults are now being recognized and rectified but you will search Jarratt in vain for any reference to that.

Third, the report urges university councils to stand up for themselves. Few would argue with that. But again, the minatory tone disguises the fact that some do, some don't and some can't. Some, moreover, don't exist. It has totally escaped Jarratt's notice that the universities of Oxford and Cambridge don't have a lay council between them.

Fourth, the report argues (in effect) for more administration, and more decision taking by administrators. Why should I of all people argue with that? Partly because that needs money, which I know we won't get, and partly because no amount of good administration will ever guarantee excellence in teaching and research.

In a document devoted to efficiency the failure to quantify savings is, surprising. It betrays perhaps the basic fallacy of the premise itself, the fallacy of the sub-optimal use of resources ("if you have a lavatory, why are you not sitting on it?"). But for whatever reason the failure exists, it will be rectified elsewhere. The government also is interested in efficiency, and its performance indices are brutally simple: pound notes.

It is a sorry picture. But perhaps we need not despair. Universities are resilient organizations as any visit to China will prove. There, they have survived the depradations of a far more hostile government than this one. Universities are also supposed to be clever. Arthur Christiansen used to say "You can't beat news in a newspaper". In much the same way, you can't beat brains in a university.

The author is a former vice-chancellor of the University of Aston.

Ten years have now passed since resistance to Communist arms ended in the three countries of Indochina. Much of the current stocktaking dwells on the effects of the Vietnam war on the USA and the American people. DENNIS DUNCANSON focuses instead on the peoples of Indochina and on the war's strategic implications for their neighbours.

Fruits of victory in Vietnam

While the Vietnam war was being fought, it was the American point of view which ran through all the reporting and commentary. It would have required unusual public sophistication and strength of mind for Americans not to have regarded themselves as protagonists in the conflict. They fell easily victims of a Comintern tactic Ho Chi Minh had studied early in his career and applied to decisive effect against a liberal-minded French public in the 1950s, namely to portray the power-seeking Communist Party as representing a united popular will against colonial rule or foreign interference.

In support of this distortion, the party has rewritten the national history with romantic tales of "resistance" to Chinese interventions in the distant past. But the issue in conflict was *not* "sinicization" (a foregone conclusion anyway) versus perpetuation of colonial rule: both France and America were in reality trying to hold the ring between factions of power seekers bent on outright exclusion from the *succession* to colonial rule. It is hard to say whether US intervention altered or merely delayed the outcome; more significant are the fruits today of the triumph of a "Bolshevik" *minority* party (to borrow Lenin's irony) over their "Menshevik" *majority* governments in old South Vietnam, Laos and Cambodia.

By comparison with the takeover of North Vietnam in 1954, the party's succession of South Vietnam in 1975 was accepted by the absence of a haven for flight or hope of alternative government. A million or so refugees (the "boat people") fled, and scores of thousands were held for years in concentration camps – some still today. Pockets of defeated soldiers fought on for three or four years, until ended by the Vietnamese occupation of Cambodia in 1979; the perennially "banking" Cao Dai religious sect held out till the end of 1984. But there was enough to cow the populace as a whole with the terror of another Mao-style "land reforms" as there was after 1954, and predictions of a 1975 "bloodbath" proved groundless – in *Vietnam*.

On the other hand, the communist policy of securing total party power through control of all labour and economic resources was given effect in the usual way by decreeing collectivization of rural life. However, communal tenure and large agricultural estates, which might have facilitated collectivization, had gone from the north, broken down into smallholdings. Recurrent party drives have by now collectivized both tillage and crop distribution in about a third of the land – a coordinately slow progress and a very low security of the regime.

At the party's triumphant Fourth Congress in 1976, a mass resettlement of Stalinist proportions was announced: up to four million urban and rural dwellers were to be moved – some between north and south, not only to break in "virgin lands", but also especially to break down existing community ties, minimize use of land for housing, and get total control of manpower into party hands. Alas, administrative incapacity, dishonesty, and popular resistance conspired to thwart the policy, and it went unmentioned at the Fifth Congress in 1982, notwithstanding grave urban unemployment. The party does not publish proper figures for production in either industry or agriculture, but the country remains one of the Malthusian food deficits in contrast to its record of food exports in colonial times. Some improvement has been brought about by Chinese-type partial imitation of China's recent reversion to family farming (in substitution for collectivism passively resisted), and by incentives to produce more than the "target" for a higher selling price, which generates its own abuses – "black" sales, according to *The Economist*, from pressure on food supplies has been procured by transfers of population into sparser-peopled districts of Laos and Cambodia and by traditional acceptance that soldiers on garrison duty grow their own rice: keeping large numbers of young men under tight discipline reduces an economic problem at the same time as a security one.

Further relief from what might at one stage have become famine (as in China) has resulted from Vietnam's accession to the Council for Mutual Economic Assistance (Comecon) in 1978. In the early 1970s, both contending halves of Vietnam had become dependent on foreign aid for almost every economic supply, from munitions and oil down to cereals. In 1975, the USA immediately, China very soon, stopped the flow, so that Eastern Europe was left alone to meet the mounting need for weapons and basic food. Both quantity and value of what the USSR and the satellites have supplied is secret, but Vietnam is the heavyweight among recipients; the non-military elements do not all come gratis, and dispatch of Vietnamese workers to Comecon countries earns foreign exchange as well as getting additional potentially disgruntled youth out of the way.

For centuries, rulers of Vietnam have found their country hard to hold together save by "Finlandizing" Laos and Cambodia, ideal havens for rebels. The party was founded by the Comintern through Vietnamese recruits with a pan-Indochinese horizon of state-building and went on proclaiming that intention till about 1951, when, for the first time "national independence" was adopted as a tactical slogan in regard to Laos and Cambodia. The Vietnamese party itself had no mass membership before it became a government in 1954, and no formal registration of "card-carriers" until 1976; in Laos and Cambodia the party is an even hazier institution, and in the former a special campaign is on foot to get a mass dimension by the end of 1985. Meanwhile, the handfuls of Lao and Cambodian leaders, appointed from Hanoi, call themselves "politburos" but show no sign of a will of their own.

The grim legacy of Pol Pot's Cambodian ambitions: a mass grave in Kandal province.

Hanoi's men now garrison the whole of Laos

Vietnamese communist troops – the rank and file comprising tribesmen – have held eastern Laos without break since 1953, except that the enclave jutting into China was allotted to the People's Liberation Army from 1962 till the war in 1979. Hanoi's men, numbering about 70,000, now garrison the whole country, with Laotian auxiliaries placed under their command by a 1954 party decree and a 1977 state-to-state treaty. The regime still faces guerrilla opposition in western Laos, but, supported by China but not Thailand, it is unimportant.

As in Cambodia, the modern sector of the government in Laos in colonial times was mainly staffed by Vietnamese civil servants; the position appears to be similar today under Vietnamese advisers whose advice has to be acted on, especially over extraction of raw materials required by Vietnamese industry. Integration of government departments and districts is promoted by twinning of the latter across what used to be the Lao-Viet frontier ("adjusted" in 1977); "solidarity between the two peoples" has been strengthened by the Vietnamese immigration referred to before, though the half million or so alleged by dissidents may be exaggerated. Laos receives aid direct from the USSR, especially for engineering works – road-building and dams to generate electricity for sale to Thailand. Collectivization is even less advanced than in South Vietnam, but food-production is just about adequate.

The destiny of Cambodia is approximating that of Laos, but only after the horrifying intra-party civil strife. Vietnamese communist forces did most of Pol Pot's fighting for him between 1970 and 1972 and furnished signals and artillery fight up to victory in 1975, although the Paris Kissinger-Tho Agreement had required them to withdraw combat troops in 1973. They had reason to assume that, after victory, Pol Pot – however suspect because self-converted to the revolution and not subverted by themselves (as were the Laotians) – would fall in with a settlement similar to the one for Laos.

Instead, having no educated cadres in his following, he destroyed all vestiges of government in Cambodia, together with the professional personnel, and, ambitious to be dictator himself, held out with China's help against the 1977 draft treaties. The 1978 war ensued, his Mao-style army was defeated, and Hanoi set up another puppet administration under his former henchmen, who signed at once what Pol Pot had spurned. Only then did the Vietnamese acknowledge (as propaganda) the bloodbath of the revolution – and, even so, not that they had connived in the atrocities from 1970 to 1977.

The Cambodian party is more insubstantial still than the Laotian party, for Pol Pot's unofficered ruffians mostly took to the hills instead of siding with the invaders; fled to Hanoi like that of Laos, the rump is a paper authority for press and radio material emanating from Phnom Penh. The Vietnamese have given simple training to a few new Cambodian professionals and administrators, but the advisers in "ministries" and twinned districts are executives as much as managers.

Under Pol Pot, collectivization took the form of arbitrary requisition or distribution of crops and mobilization of forced labour (eg for senseless irrigation works) by the armed youths who took the place of a government; today, refugees still allege arbitrary distribution and requisition, but there is no reliable information about tenure or labour, and no reason to suppose there is any formality about either.

UN and other Western charity aid offers a cushion against famine, which the Vietnamese invasion rendered specially acute in 1979/81. Since then, extensive Vietnamese settlement has taken place here too – on the land, in the freshwater fisheries of the Tonle Sap lake, and on rubber estates in eastern Cambodia.

The Vietnamese garrison is double that in Laos, and the new local auxiliaries, though less numerous as yet, appear likewise equipped and trained in Vietnamese goose-stepping style. The marked militarization of Indochina is explained in Hanoi as defence against hostility from China, manifest in the latter's supply of arms to Pol Pot in the hills (as well, in conjunction with Thailand and Singapore, as to his temporary allies in the "coalition government", the guerrillas of ex-Prince Sihanouk and ex-Prime Minister Son Sann); in the threat of more "punitive actions" on the unsuccessful 1979 lines, and in continual skirmishing along the Tonkin-Yünnan frontier.

The parallel is with the Soviet Union's European satellites

But there is a positive aspect of the matter too. The Comintern intention to bring the whole peninsula under one party has never been forsworn. When Pol Pot first rejected the friendship treaties of 1977, insisting on this fact, Hanoi at once disowned the intention of setting up a unitary *state* in Indochina; but in the communist world states are secondary to "the Party", so that the concession gave nothing away. As long as one politburo and one army-command retain control, there is advantage in keeping the shell of three states separate: it procures extra foreign aid from the non-communist world, and it gives the party three voices in the diplomatic world, especially the UN.

The obvious model constitution is that of the USSR, which also has three seats in the UN; but in some respects, such as the outward show of embassies and "missions" and a network of friendship treaties among the three and with the rest of the communist world, the parallel is for the time being with the Soviet Union's European satellites. Very recently, India pledged support "as a partner in shaping the future" of a Vietnam thus strengthened and "a beacon to the poor and the oppressed".

Soberly judged, the triumph of Vietnamese communist arms in 1975 caused a major shift in the balance of power in the Far East. The Chinese under Mao underrated the strength of Vietnamese ambition while overrating the military capacity of Pol Pot's guerrillas, who were inspired by extreme Maoist "proletarian culture" but deliberately unorganized. The emergence on China's southern border, sensitive all through history, of the world's fourth biggest army (bigger than India's) in the service of a rival "liberating" imperialism cannot but be a menace. For that very reason – even without its need for aid, technical assistance, and diplomatic support – Vietnam must ally itself (and its military bases), against preemptive attack, with a USSR friendly to India but hostile to China.

The new Vietnam's armed forces likewise outnumber three-to-two the uncombined forces of all other nations in South East Asia, not counting Burma. As internal security of Vietnam dictates dominion over Laos and Cambodia, so cohension of Indochina may dictate dominion over northeast Thailand . . . and so on. The pretext of defence of the USSR underlay Lenin's "progressive" programme for world revolution, which the Vietnamese have tried over, and over as their ultimate goal, after liberation of South East Asia as a whole. Like China, therefore, the members of the Association of South East Asian Nations (Thailand, Malaysia, Singapore, Brunei, Indonesia, and Philippines) have mobilized UN recognition of the anti-Vietnam forces as legitimate rulers of Cambodia – for all the savagery of the road to power Pol Pot chose (originally with the Vietnamese party's approval). Not least among ASEAN's anxieties is that of future conflict in the region – in the waters of the South China Sea as much as on land – between China and united Indochina, in which the USSR, already offering good offices as "guarantor of peace" in the region, might take a hand.

In 1945, the USA supposed that the European powers, failed guarantors of peace there, could be supplanted by the UN. When the latter was ruled out by Soviet and Chinese opposition, the Truman Doctrine was brought to bear. That in turn was nullified in the end by demoralization of US public resolve – a deliberate objective of Hanoi's strategists. One cannot be sure whether firmer French resolve could have confined the communists with the territory conceded them in 1946, firmer American resolve within the larger territory handed over in 1954; but it is certain that cold-war fears in 1954 have been borne out by 1975 and its aftermath.

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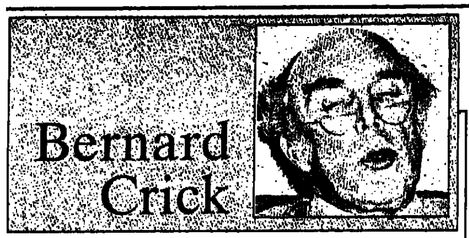


Looking back on the week of memory

Some things happen and they never get reported. Some things get reported and one wonders if they ever happened. If it hadn't been for the BBC and the newspapers, how many of us would have been aware of the 40th anniversary of VE Day – which ever day it was, whether by Western or Orthodox calendar? Where were the bunting, the parades, the processions, the fireworks or other manifestations? Few of us could go to the Abbey, or was it St Paul's? Something was happening there which was widely reported. Perhaps if one looked hard, as when one is looking for a good restaurant in a strange town, one could have found ceremonies of remembrance hidden away in small churches throughout the land. But there was no visible presence on the streets nor any talking of strange to stranger even in licensed premises.

We are no longer a nation with any traditions of civic or popular celebration. If we are traditional, we are not demonstrative – indeed there is still a deep fear of public exhuberance. Of course violence breaks out occasionally among football crowds, but the ordinary, boisterous rowdiness of these often appears to outsiders as threatening, as a step towards violence – which it is not. "My mother said," said my mother, "that 'Mafeking night in Kingston was terrible'. She kept me and my sister in. Nothing like that happened in 1918." But wild horses could not have dragged from her any elaboration of "like that", whatever it was. Even the BBC's extensive coverage of VE Day became all mixed up, as one listens while washing, having breakfast and driving, with its remorselessly repetitive promotion of a BBC Publications' Archive recording of great wartime sounds and voices. Had there been a war at all or was it all an invention of BBC Archives, reacting to the Peacock committee, or of the President's men?

I was once astonished and excited by being asked by *The Observer* to write a big article to mark the 750th anniversary of the signing (or sealing) of Magna Carta – not quite my field, some may say, but I wrote a decent essay on English liberties and the need to use them occasionally (and without once having to mention the NCCL). But this brief attempt to make England France was soon abandoned. No way could I interest them in the anniversary of the passage of the Reform Bill of 1867. I thought that the beginning of the democratic franchise in Britain was worthy of some civic celebration or cerebration at least; even of the Media-led or invented kind. But they didn't think their readers would be interested, and they should know. Even Guy Fawkes night has lost all civic meaning.

What I am really getting round to is the cathartic confession that I, alone among writers and journalists, have no memory whatever, even though I was fully 15 at the time, hysterically religious and sturdily patriotic, of what I did on VE Day. "What did you do that day, grandad?" "Can't remember". "Thank God for that." It was in term time. At some stage the school OTC marched down to the parish church with rifles behind the band for a bellicose ceremony of thanksgiving and remembrance of the Glorious Dead, most of us regretting that the war had ended before we had had a chance.

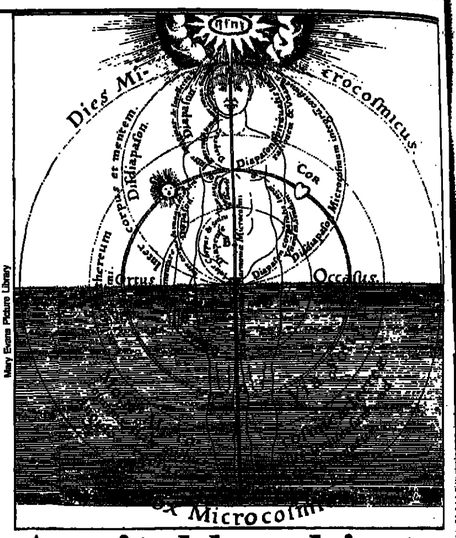
Oddly, though born in 1929 and growing up during the war, when I think of war and feel the aching sorrow I always feel in reading list of names on memorials in country churchyards, it is the First World War that I think of. Actually my family didn't think much of the Second World War. My mother's cousin Elsie simply refused to recognize it. She had run the Twickenham Lest We Forget, the Primrose League, the Conservative Ladies' Association and was principal organizer for the November 11 poppy sales for the whole of Richmond, Ham, Twickenham and Kingston, collecting them in one of her husband's vans directly from the disabled servicemen at the workshops in Richmond. She had all of these activities hopelessly jumbled in her mind as a collective cult of the dead of 1914–18. The new war profaned these memories and she refused to have anything to do with it. As a little boy, taken to church each Sunday, I truly believed that Christ had died among the poppies of somewhere called Passiondale to save us from the Germans.

So much was the phrase "the war to end wars" imprinted in my mind that I was surprised but not shocked when my normally very reserved and proper father went down the Front at Swanage in September 1939 tearing down "War Declared" posters and shouting, "it's a lie". He never discussed the war for one moment, refused ARP, Civil Defence Home Guard duties for which he was liable, but was not prosecuted – to my mother's annoyance; and he retreated by day into hard work in his insurance office and by night into drink in the bar of a private bowling club whose greens had become, for the duration, potatoes. When he came up the front garden path one night without noticing a huge crater from a delayed action bomb in the lawn, I am inclined to believe, unlike the neighbours, that it was his hatred of the war more than his intoxication that caused this sensational cognitive myopia. When my sister's husband was killed he did necessary things efficiently but could find no words of comfort.

He must have been one of the very first men of working class origin in 1914 to be commissioned, admittedly only in the RAMC in charge of motor ambulances. He served both in Salonika and on the Western Front. There was a terrible quarrel when my brother came home on leave from the Salerno landing, with a "Blighty wound", and Harry told him that he didn't know what fighting was.

I remember vividly father hoisting me on his shoulders on the roof of the Airport Hotel at Croydon (he got a good place because he did the insurance for the hotel) to see Neville Chamberlain bring peace, or that piece of paper, in his hand. I can see Chamberlain so clearly as if from a few yards away, so this must be an induced memory from family talk and seeing photographs years later. But he certainly took me. My brother refused to come with us. He had just joined, though still at school, the Territorial Army and wanted war.

Joining the Territorials probably saved his life, for they refused to release him in 1939 when he got accepted – after three months cramming at Pitman's for Matric Maths – for training as a fighter pilot. Thereupon he sulked, refused to take a commission, and spent most of the war in the ranks of the engineers, reverting, to the family horror, to the working class speech and habits of his father's youth. My sister's husband had less good luck. At the mess party to celebrate his last mission (numbers were limited for married men), the flight navigator fell off a table and broke his leg. My brother-in-law took his place the following night instead of driving home on leave. They think he was shot down by the Swiss flying off course. But oddly when I think of what another world war would mean and all that needs to be done, and is not being done, to avoid it, the images that come into my mind and sometimes dreams are those of bodies on the barbed wire of no man's land in 1916, not of the mushroom cloud and the nuclear winter.



Mary Evans Picture Library

A suitable subject for investigation

Percy Seymour argues the case for taking astrology more seriously

Any mention of astrology in academic circles is met with open ridicule, high-brow dismissal or aggressive argument. Whatever the initial reaction, subsequent discussion or debate inevitably raises a number of issues which would be a matter of concern to all who believe that a careful consideration of evidence, rational argument and open-minded approach to new ideas should form important ingredients of the general academic climate.

The important issues are much broader. Academic politics, the general scrounge for students and educational funds and the bureaucracy fostered by validating bodies like the Council for National Academic Awards, have meant that these attitudes are evident on validating panels, in course committees and during boardroom discussions on academic matters.

Several years ago Professor Sarton, a distinguished historian of science, dismissed the study of the history of astrology as a "wretched subject" not worthy of academic study. He was taken to task by Professor Neugebauer, an authority on the history of science in the ancient world, who pointed out that we cannot begin to understand the history of science, art and cultural ideas without an understanding of ancient astrology. To quote Neugebauer: "To the historian of science the transmission of ideas is rightly one of his most important problems. Astrological lore furnishes us one of the most convincing proofs for the transmission of Hellenistic astronomy to India . . . And the history of art and philosophy of the Renaissance has gained immensely from the researches carried out by the Warburg Institute on the astrology of preceding periods."

Professor Kuhn, in his book *The Copernican Revolution*, makes it quite clear that astrology provided the major motive, for several centuries, for studying planetary motion and that this research formed an important cornerstone of modern science. There can be no doubt then that the study of astrology is of import in any attempt to understand the history of science, literature, art and society.

The demise of astrology and its exclusion from the universities is usually attributed to the acceptance of the Copernican scheme and the development of Newtonian mechanics. However there is evidence to suggest that the decline of interest in astrology had as much to do with the application of astronomical knowledge to the problems of navigation. Until this time astronomers had received support for their work from patrons who were more interested in astrology. Now a new bread of patrons were willing to fund the work because it could help them to expand their empires.

One hundred and ninety-two leading scientists, including 19 Nobel prizewinners, would lead us to believe that there is no evidence for astrology, and to make sure that the doors of the academic world are kept tightly shut, they signed a manifesto, in 1975, condemning its practice. Paul Feyerabend states his disagreement with this manifesto, in the following terms: ". . . The judgement of the 192 leading scientists' rests on antediluvian anthropology, on ignorance of more recent results in their own fields (astronomy, biology and the connection between the two) as well as on a failure to perceive the implications of the results they do know. It shows the extent to which scientists are prepared to assert their authority even in areas in which they have no knowledge whatsoever."

Michael Gauquelin has, over the past few years, produced a considerable amount of evidence to support the idea that the state of the universe at birth can influence personality. Professor Eysenck and Dr Nias have examined Gauquelin's findings and they have this to say: "If there is any value in the scientific method as usually employed in studies of this kind, and if the laws of statistics apply here as they do elsewhere, then these discoveries must stand as clear indications that our conceptions of the universe we live in are not as final and complete as we might like to think, and that there are certain facts urgently in need of a good hypothesis to explain them."

Is it possible to think of a mechanism which could explain how the state of the universe at, or even prior to, birth, could affect the personality of an adult? In rather lyrical terms the theory can be stated as follows: the Sun is like a celestial harp with magnetic strings on which the planets play a tune with their long gravitational fingers. This tune is transmitted to the Earth via the solar wind and it is received by the geomagnetic field. To "the music of the spheres" must be added other variations of the Earth's magnetic field. There are seasonal variations, changes connected with the lunar month, the lunar day and the solar day. The brain of the developing foetus could be compared to a tape recorder fitted with a magnetic tape, on which this music is recorded. It is this recorded message that could influence, to some extent, the personality of the individual.

There is growing evidence that solar activity is influenced by the positions and movements of the planets. Several scientists have found correlations between the movements of the Sun about the common centre of mass of the solar system, due to the gravitational tug of the planets, and the peaks of solar activity. Other scientists have found evidence linking the combined tidal forces of the planets on the Sun with particularly violent solar events. To say that this is contrary to the currently accepted theory of solar activity is to misunderstand the foundations of the present model. Most people working in the field are aware that, at the moment, this theory is largely kinematic and that many problems will still have to be solved before a theory capable of predicting solar activity can be constructed. However, those scientists who have worked on empirical models of solar activity have had some successes in predicting solar maxima and very large flare events.

Ever since 1852 it has been clear that solar activity does affect the magnetic field of Earth. It is now becoming clear that the link between variations of the geomagnetic field and the behaviour of the Sun is the solar wind and the interplanetary field embedded within it. Solar activity is only one contributory factor to the variations of the geomagnetic field. Power series spectral analysis has shown that the power spectrum of this field is very complex indeed, and it includes a great many frequencies connected with the seasons, the rotation of the Sun, the lunar day and month, the solar day as well as other variations whose periods are measured in hours and minutes.

There is also growing evidence that the geomagnetic field can also influence biological functions. Over the last few years the ability to find direction using the geomagnetic field has been demonstrated for bacteria, birds, fishes and man. Biologists have shown that neurons have associated magnetic fields and that the whole brain also has a magnetic field. Other experiments have shown that reaction times, dark adaption and the flicker-fusion threshold can be influenced by external magnetic fields. Some experiments have shown that prenatal exposure to low frequency rotating magnetic fields do have an effect on biological functions in some animals.

One Austrian biologist, Birzele, found some evidence to suggest that similarities between parents and children were dependent on the state of the geomagnetic field prior to birth. Gauquelin showed that the number of personality similarities between parent and child was two-and-a-half times greater if the child was born on a magnetically disturbed day than if it was born on a magnetically quiet day. This particular result of Gauquelin's was based on a much larger sample than some of his work which linked the positions of the planets at birth with eminence in certain professions.

In January I wrote four articles, outlining my theory, for a local newspaper. A heavily edited version of the articles appeared in a Sunday national newspaper. Dr Magnus Pike commented on my work and said: "This man is dangerous and the work nonsense". This reaction, which was printed in the newspaper, apparently resulted when a reporter from the newspaper explained my theory to Dr Pike over the phone.

In referring to his work on cosmology Edwin Hubble said: "We search among ghostly errors of observations for landmarks that are scarcely more substantial". The same is true for a great deal of work in the physical, biological and social sciences. Scientists reject my statistical evidence because up to now a theory has not been proposed to explain any part of it. Some scientists have said that I should not speculate on the basis of such meagre evidence. Not only do I not accept the claim that the evidence is meagre, I believe it is part of the nature of science to speculate. In any case science has its own safeguards in the form of rational arguments, statistical analysis, experimental and observational tests. There is a danger in the possibility that astrologers could use aspects of the theory to support their own misguided, or even at times fraudulent, work of forecasting the future. This is a much broader issue: should scientists suppress their ideas because they might be misused?

I believe the real danger is in suppressing evidence and ideas because they are contrary to the accepted dogma of the day. Astrology may well furnish a classic illustration of a remark made by Karl Popper: "Connections which are not far to seek may easily be overlooked if it is continually repeated that the search for any such connections is meaningless."

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In party mood

Posters illustrating crucial moments in the political and social history of the 20th century – the Nazi and Fascist régimes, the First and Second World Wars, May 1968 – have, of course, been collected, displayed and published. While these images have been regarded as important documents, the vast number of posters produced by political parties at election-times have until recently been largely ignored.

The study of such posters has been neglected because they are regarded as merely ephemera. Yet the campaigns are usually planned carefully by the parties and their visual propaganda reflects this. As well as providing an interesting exposé in graphic terms, of the main social and political issues of a particular country (unemployment, terrorism, inflation, nuclear energy, racial discrimination etc) posters, because of the dominant role played in them by visual imagery, have considerable immediacy and emotional impact.

They do not simply translate into verbal or figurative terms official party policies, they can also evoke attitudes, feed prejudices, produce secondary ideologies, moods and myths. Ultimately, the approaches adopted are revealing of the type of public each party addresses itself to and of the image it wishes to project of itself.

The realization of the importance of these techniques of persuasion, with their subconscious impact on people, is recent. A few critical exhibitions of posters have been mounted, such as the *Imagerie politique* exhibition at the Pompidou Centre in Paris in 1977. One or two research centres are now taking an interest in political propaganda, and notably the department of note, visual and performing arts at the University of Bologna under the leadership of Umberto Eco. On a purely linguistic level, political propaganda is also being examined at the Department of linguistics of the University of Padua and at the Laboratoire de Lexicologie Politique of the Ecole Normale Supérieure de Saint Cloud in France.

The study of political propaganda is handicapped, however, by the lack of archives of political graphics. Research, therefore, is sometimes based on small samples of material made available by some parties.

In order to encourage systematic research into political propaganda the Italian department of Lancaster University is now collecting on a regular basis all printed publicity (posters and leaflets) issued by the parties of the EEC during national and European elections in order to institute the first Archive of Political Graphics in Europe. The first collection of material from the archive – a selection of posters from the 1984 European Parliament elections – was shown at Lancaster University between March 18 and 29 this year.

In 1984 elections for the European Parliament provide the framework for a detailed study – within each member country and across national boundaries – of the way in which the parties presented their policies and promoted their image.

"Europe" as an issue (whether to stay in the EEC or get out) is not one which figured in the campaigns, except in Denmark, and of course in Britain, where the one party which unreservedly opposes British membership, the National Front, produced a poster that attempts to portray the Common Market as a form of imprisonment: the Union Jack is stamped conspicuously over barbed wire, drawn on the cliché of Dachau, with no suggestion of the Germans being thrown in.

In Germany, on the other hand, Europe was promoted by some of the posters in 1984 centred on the friendship between France and Germany movement of the 20th century together: a Christian Democrat poster, for two in particular, proclaimed, less fervently, the "Europäischen Demokraten". The CDU slogan throughout the campaign, *mit Deutschland für Europa*", implying that Germany was on the move towards a Europe too. The use of witty and imaginative ideas, and the technique of juxtaposition, Brussel

The French and British National Front parties favour an insular approach to Europe

Above: The Greens opt for a wholesome style while below, the French Communist Party choose a Michaelangelo motif

They have ways of making us vote for them: Davina Chaplin and Ronald Ferguson look at the importance of posters as documentary evidence of visual propaganda.

and put across the concept of a Europe which transcends the problems of the butter mountain, the wine lake and of balancing the budget.

The sources of the graphic propaganda are rich and wide-ranging in three cases in particular, Italy, France and Germany – countries with strong artistic traditions. By comparison, the others tended to produce less imaginative designs, relying, as they often did, on the effigy of the candidate. In some instances, the sources are chosen within the visual traditions associated with the party in question: in Germany the SPD's campaign based on photomontage goes back to the artistic avant-garde of the Weimar Republic. In Italy and France, left-wing parties made use of satirical cartoon, deriving from the May '68 *affiche* tradition.

Normally this kind of propaganda is produced by officials within the party itself; as a result the party has full control over its own publicity, which is more ideologically centred and imaginatively conceived and executed, even if it appears less professionally glossy than the propaganda of the mainstream consensus parties. These often commission advertising agencies to handle their graphic campaigns, a practise which leads to posters that are slick in appearance but strongly reminiscent of ads for contraceptives or Coca Cola.

Prominent in this type are soft-focus shots of healthy youth running hand-in-hand over Alpine meadows. The blandness of this imagery means in effect that it is non-controversial and could apply to almost any of the "moderate" parties, as could the appeal to patriotic instincts which figures in many posters of the centre-right, often marked by flags.

Left-wing parties and the extreme right differ considerably in their method of presentation: the National Front in France (FN), for instance, which used the European election as a means of giving their candidates political respectability, depicted its leader Jean-Marie Le Pen as informal and approachable (but his open-necked shirt, hinting at virility, recalls for the public his paratrooper past). In Italy, ex-Fascist Almirante swopped his truncheon for a reassuring fatherly pose. The Communists on the other hand, refrained from using effigies of their leaders, for fear of being associated with the totalitarian cult of personality.

The French Communist Party (PCF) for example, used an image drawn from Michelangelo to express creation, here applied to jobs, and one from Léger's worker-on-scaffolding paintings to celebrate full employment. It also made use of computer graphics in its campaign to project an image of up-to-the-minute technology, a party in touch with the pulse of Europe in the 1980s.

The Green Parties' propaganda is particularly interesting in Germany, where 1984 proved a very successful year in party history. Die Grünen too used cartoon to great effect, with the theme of protest against unemployment, environmental pollution and factory-farming winning them a greater share of seats than expected.

The style of their posters, significantly, is characterized by wholesomeness, which even extends to the home-made impression created by lettering which is cuddly and alternative, not authoritative and mainstream. Even in Britain, the Ecology Party produced home-spun posters along these lines, conveying the message that it lies outside the world of the party establishments.

As a general rule, it was only in extreme left and regional parties that words predominated over imagery. This presumably is because these parties normally lack a political forum and therefore need to get across a precise message about what they stand for.

Sexist images on the whole proved not to be a feature of the 1984 European elections in most of the party campaigns, and women were no longer addressed as housewives and mothers only. Even the Italian extreme right (MSI) party paid lip-service to the liberated woman – with a slogan *"Costruiamo l'Europa anche 'A Misura di Donna'"* proclaiming the importance of the female dimension in Europe. An exception was the German CSU (Josef Strauss's party), which depicted a young attractive woman licking a European lollipop.

With their mixture of imagery, style and words, posters reveal a side of the parties which official manifestos cannot or do not. Inadvertently the parties give themselves away. Since we are all relatively unaccustomed to decoding images, posters are able to exploit this visual illiteracy, cutting straight through our critical faculties to reach our emotions. In the fullest sense, the medium becomes the more potent message.

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BOOKS

Her share in the life of poetry

by Roger Sharrock

Dorothy Wordsworth
by Robert Gittings and Jo Manton
Clarendon Press: Oxford University Press, £12.50
ISBN 0 19 818519 8
Letters of Dorothy Wordsworth: a selection
edited by Alan G. Hill
Oxford University Press, £9.95
ISBN 0 19 818539 1

Robert Gittings and Jo Manton remind us that John Wordsworth, the father of William and Dorothy, came from the West Riding of Yorkshire to be the man of business to Lord Lowther in Westmorland. There is certainly a hard, gritty Yorkshire quality of stubborn resolution in both brother and sister.

It enabled William when practically penniless to persevere in his vocation as poet, to leave Cambridge without a fellowship and live for years a wandering, bohemian life, leaving the Cookson uncle and cousins who had brought him up and paid for his education to wait years for their money, instead of following the conventional course into a living or a tutorship. More extraordinary, a corresponding obstinacy in Dorothy led her to take the decisive step of sharing his life and keeping house for him. For Dorothy was stereotyped as that most conventional of 18th and 19th-century figures, the maiden aunt and poor relation.

In 1794, when the decision was made, she was fulfilling this role in the rapidly growing family of her cousin William Cookson and his wife at their rectory at Forncett in Norfolk. John Wordsworth had died in 1783 when Dorothy was eleven and William two years older; their mother had died five years before. She was brought up first at Halifax by an older cousin, Elizabeth Threlkeld (later Rawson), then by the Cooksons, now her guardians, at Penrith. The Halifax household was a loving one, the Penrith one seems to have been harsher and more straightlaced. From there she went to Forncett in 1788; she got on well with William Cookson and his wife and the children. The decision at her age to leave is all the more an instance of settled will.

One powerful motive was the desire to be reunited with members of the family from whom she had been separated. For Dorothy suffered a peculiar refinement of deprivation which was worse than the lot of William and her three other brothers: during the years at Halifax she never went home for holidays, even for Christmas, which was her birthday: "For six years I was never once at home". As Gittings and Manton note, in that age parents who died early created as many broken families as broken marriages do in our own age. "How are we squandered abroad", Dorothy says in another letter. The choice of verb is significant. To be without a family centre is a waste of human material, and the prudent Yorkshire housekeeper abhorred waste. The squandering also hints at a financial plight. John Wordsworth had died intestate, leaving his affairs in chaos. James Lowther, Earl of Lonsdale, "the wicked Earl", owed him £5,000 which was not repaid for almost twenty years. The guardians saw that the boys received a college education (though Dorothy had to leave boarding school) but the atmosphere was one of penury and increasing debt. This cavalier unscrupulousness of an irresponsible landowner may have had something to do with the passion of William's early radicalism in which his sister shared.

When John, the sailor brother beloved of them all, died in 1805, Dorothy was to exclaim, "The set is broken". The family is a set in almost the mathematical sense, a complex of relationships. To begin re-establishing this set was why Dorothy left Forncett. The opportunity came with the Calvert legacy which allowed William and Dorothy to set up house at Racedown in Dorset. Then there was the move to Alfoxton in the year of *Lyrical Ballads*, then Grasmere and the return to the Lakes, but always now they were to be together. Dorothy had emancipated herself from poor relation status; she would not grow to be a Miss Bates; she would observe the fine relation of the re-created and extended set in the family of her brother's wife and children. The huge irony is that her life in the prospering and burgeoning Wordsworth set of Dove Cottage and Rydal Mount was to be in great part one of selfless service and of constant backbreaking work.

Her letters and journals are full of the details of this domestic life of cooking and baking, William catching fish to escape the market prices that were rising steadily during the war years. Above all, there was the burden of washing, starching and ironing amid the uncertainty of Lakeland weather. The atmosphere of poverty and frugal housekeeping continues through the Racedown period and on to the years at Grasmere and Allan Bank. There was no great divide of physical life to separate her from the beggars who came to the door: the sailor in a patched coat who asked, "Is there a brigg yonder that'll carry me ow'r t'watter?"; and of course the one met on the road, a very old leechgatherer who now lived by begging. Dorothy could enter with a full sympathy into William's early poetry of the poor and the alienated. Her Cookson cousin was a canon of Windsor and on a visit there she had been presented to George III. But she did her own washing. The Wordsworths lived in a late stage of a status society and assumptions based on a monetary class system do not apply. A more helpful (though loose parallel for them in their liberal and radical phase would be the Russian 19th-century intelligentsia, and then the oscillation to an organic conservatism and Anglicanism would correspond to Dostoevsky's religious panslavism. In their household the little boy of Basil Montagu was brought up in complete freedom on the principles of *Emile*. "Nothing but what he learns from the evidence of the senses", says Dorothy.

MARY EVANS

Dorothy Wordsworth: 'I shall not want society by a moonlit lake'

It is in registering with a fine particularity the evidence of her senses that Dorothy competes with her brother and Coleridge as a creative observer of nature. The journals reveal what Coleridge called "her eye watchful in minute observation of nature". Or as she said in her description of the daffodils by Ullswater which formed the embryo impression for Wordsworth's poem, "the simplicity and unity and life of that busy highway". It is not satisfactory to regard her simply as amassing the raw material for the poetry of theirs. There is a subtle, rhythmical prose poetry in the descriptive passages in the journals from the first sentence of the Racedown Journal: "The green paths down the hillsides are channels for streams". To write like this she must have achieved a purging of that language of sensibility derived from Richardson and others in which the more emotional parts of the letters to her friend Jane Marshall are written; she had to exercise a discipline comparable to that by which her brother in *Lyrical Ballads* purged his verse of literary epithets. The Grasmere journal marks a further development towards a more reflective style of observation. The favoured, Eden-like vale of Grasmere is now seen as the setting for a favoured pair who have escaped from the artificial world. "I shall not want society by a moonlit lake". Gittings suggests that Dorothy's prose here owes something to that textbook of the Romantic movement *Paul et Virginie*; in that book the boy and girl grow up innocently like brother and sister.

The affection of brother and sister cannot be interpreted as incestuous, though according to De Quincey the locals often drew the most uncharitable conclusions from their moonlight walks and obvious closeness. In the creative years there was a kind of symbiosis of the emotions between them and Coleridge and all Dorothy's sexuality seems to have been sublimated into that. She had early decided never to marry. When William married Mary Hutchinson she accepted her as a friend and went on living with them. So in the end she did become a maiden aunt to the young Wordsworths. John the unintellectual one being her pet. But it is difficult to see her as the victim of a male-created role (in spite of all that washing). In her case she had chosen the role as her share in the life of poetry. And the life of domesticity was the necessary ground-base of Wordsworth's poetry where imagination never floats wholly free from the earth and common things; after writing the *Ode*, her journal tells us, "Mr Olliff sent the dung and Wm worked in the garden": that was how it was.

Dorothy had chosen for herself, but it was a choice to be a helpmeet in a set, the set of competent and admiring women which surrounded and spoilt Wordsworth. It is natural therefore that the story of her life after his marriage should be largely a reflection of his concerns. She shared equally in his transition from radicalism to conservatism and in the hardening of moral attitude which seems to have followed on John Wordsworth's death and the sudden sense of limit it imposed upon these *schöne Seelen*. In 1793 she could write generously (and no doubt in quite good French) to Annette Vallon about the birth of William's illegitimate daughter; twenty-odd years later both she and William were reflecting disagreeably on De Quincy's liaison with a local girl, although that liaison was to end in marriage. The hardening was not only moral: from 1835 Dorothy began to lapse into paralysis and weak-mindedness (symptoms, think the biographers, of Alzheimer's disease). The strange prophecy of *Tintern Abbey* was shockingly realized:

> If solitude, or fear, or pain, or grief
> Should be thy portion . . .

Robert Gittings and Jo Manton are to be congratulated on a firm and balanced narrative. Gittings's earlier biographies of Keats and Hardy were often marked by speculative identifications and interpretations. Here all is a plain story and any suggested explanations of events are tentative and muted. The fact that the beginning of Dorothy's physical decline coincided with a grave family misunderstanding with Annette is left to speak for itself. William, under financial pressure, had commuted Annette's annuity to a lump sum, but the income from the lump sum fell below the level of the annuity. Altogether Gittings and Manton succeed in establishing the diurnal round, the visits to friends, the demands of nephews and neighbours, as the necessary background for the Dorothy who walked on the hills at midnight like a gipsy. To explain the co-existence of these two aspects is another matter.

That diurnal round rather than the life of her imagination is fully brought before us in Professor Alan Hill's judicious selection from Dorothy's letters. It forms a fitting companion to Mary Moorman's Oxford edition of the journals.

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Mind and nature

Wordsworth, Freud and the Spots of Time: interpretation in The Prelude
by David Ellis
Cambridge University Press, £19.50
ISBN 0 521 26555 X

Most literary critics regard the psychoanalytic interpretation of literature with some scepticism; considering it to be crudely reductive, eliminating the very qualities that make a text worth reading in the first place. David Ellis shows that it cannot even work on its own terms (how can a literary text free associate?) Yet his belief that Wordsworth was primarily a "psychological" poet, and a corresponding interest in the *Prelude* not so much as a poem but as a "human document", lead him to try to find a way between the two polar extremes of an wholesale espousal or rejection of psychoanalysis.

Ellis assumes that Freud's texts constitute a coherent body of theoretical work that can help in the interpretation of literature. If he acknowledges only "a debt of a general rather than a particular nature" to Freud he continues to read literature against the map of psychoanalytic knowledge. Such a relation of subordination has been questioned by a critic such as Shoshana Felman, who points out that if literature seems prone to fall within the domain of psychoanalysis it also provides the language which psychoanalysis uses in order to speak of and name itself. Moreover, recent rhetorical criticism, examining the language of psychoanalysis with the sort of care normally reserved for a literary text, has shown how Freud's writing becomes entangled within the very process that he seeks to analyse. If the application of psychoanalytic knowledge to literature has given place to an examination of the ways in which psychoanalysis and literature implicate each other, then the bogey that Ellis seeks to dispel could be said to have already departed.

Ellis's own preference is for a psychological reading "in the old style", appealing more often to an everyday common sense psychology than to Freud, while his startling refusal to consider the effects of language hardly accords with the spirit of the inventor of the talking cure. Nevertheless he does not manage entirely to avoid the reductiveness that he rightly finds in vulgar psychoanalytic criticism. Ellis's aim in the book is quite straightforward: to understand the meaning of the two enigmatic "spots of time" in Book XI of the 1805 *Prelude*, episodes which certainly retain the "fructifying virtue" that Wordsworth claimed for them if the critical activity they have generated is anything to go by. Ellis's thesis is that, unremarkably, the two spots of time are about death, and, less convincingly in the case of the first spot, guilt (with help from Freud here). He argues that Wordsworth's own accompanying analyses of them as illustrations of the overwhelming power of the human mind do not square with the passivity of the experiences recounted. Wordsworth's interpretations offer a systematic explanation that is "forced". But then this argument itself depends on the way in which Ellis himself has interpreted the spots in the first place.

Ellis's exclusive emphasis on psychology leads him to disregard the extent to which much of the mental experience evoked in the *Prelude* involves metaphysical claims. Since Arnold it has become customary, particularly in Britain, to regard Wordsworth as a humanist and to dismiss the transcendentalism of the *Prelude* – one reason for the remarkable fact that Ellis's is the first book-length study of the poem by an English critic. But as Bradley showed, the *Prelude* is as much concerned with the process of being made fit "to hold communion with the invisible world" as it is with the power of Wordsworth's own mind. Consciousness is structured dialectically (typical of the period) through the well-known interchange between mind and nature, itself the "bodily image" of the "soul divine". For Ellis this oscillation only evidences "signs of confusion". He thus retreats into psychological explanation even before the key moments in the poem when the correspondence between mind and nature becomes precarious. Of one such moment, the description of the Winander boy in Book V, he simply remarks that "the enclosure of the world within the self makes death an impossibility" – which is hardly very reassuring when we remember that the Winander boy died before he was ten. When Ellis goes on to claim that the vision from the top of Snowdon in Book XIII demonstrates "the mind's superiority to the world in which it moves", one begins to wonder whether the confusion is that of the text or the analysis.

Robert Young

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BOOKS

Man as agent

Philosophical Papers
volume one: Human Agency and Language
volume two: Philosophy and the Human Sciences
by Charles Taylor
Cambridge University Press, £25.00 and £7.95; £25.00 and £8.50
ISBN 0 521 26752 8 and 31750 9; 26753 6 and 31749 5

Charles Taylor has always been a particularly interesting philosopher. His thought is wide-ranging, the product of an extrovert personality and a penetrating mind. Moreover, his philosophy has a special interest because, although he writes for the most part in the tradition of analytical philosophy, he combines this with an interest in and respect for recent continental movements, particularly phenomenology and hermeneutics. A concern for the latter is relatively common among Canadian philosophers, but the particular blend of philosophical attitudes which manifests itself in Taylor's thinking is all his own.

The two volumes now published provide a selection of Taylor's papers written during the last fifteen years. The first volume is directed to the philosophy of mind and, in a very special sense, to the philosophy of language; the second has as its concern the philosophy of the social sciences and political philosophy. Each is prefaced by an introduction which is identical in content (though not, oddly enough, in printing). In this, Taylor emphasizes the extent to which he regards the papers as "promisory notes". He also expresses the hope that they may lead to the fulfilment of a more ambitious project concerned with demonstrating what he calls the "ultimate moral grounding" or Æpirisual basis" of modern naturalism from within a rival and more acceptable theory.

The introduction opens with the suggestion that the papers are "the work of a monomaniac". Certainly a particular view of human beings, a specific "philosophical anthropology", is made clear time after time in these essays. It is a view which is fundamentally hermeneutical, and owes much to philosophers such as Heidegger who lie at the root of contemporary hermeneutics. Man is a self-interpreting animal, whose nature is somehow constituted by that interpretation. Man is also fundamentally an agent. Indeed the self-interpretation view is first set out in a paper entitled "What is human agency?". In that paper, Taylor makes use of a distinction made by Harry Frankfurt, between first and second-order desires, the second of which have the first as their object. This is what gives human beings the peculiar responsibility for their actions which is characteristic of them as persons. A number of papers in the first volume elaborate on that idea.

They also emphasize the essential role played by language in that self-interpretation and this is taken further by two papers specifically on language. In these, Taylor tries to present a view of language which is "expressive" rather than "designative", and one which therefore flies in the face of much recent Anglo-Saxon philosophizing in this area, which is very much concerned with meaning and truth-conditions. Taylor presents his view via an historical conspectus which is intriguing in itself, although it has to be said that his historical forays, sometimes along relatively uncharted paths, tend to be impressionistic. A similar historical survey in a paper on Hegel, which finds a line of thought developing through Fichte and Hegel which puts an epistemological and ontological primacy on action, seems to me highly dubious.

The trouble here is similar to one which arises over the papers in the second part of the first volume in which Taylor tilts at the windmills of recent psychological theorizing, particularly in cognitive psychology. Taylor is very good at presenting a *description* of human beings and human forms of consciousness, from the standpoint of what he calls "strutured identity", and concern with "disengaged identity", and what others have called "scientism", appears obviously inadequate. Taylor criticizes Heidegger, Foucault, the Frankfurt School and others for inadequate arguments and over-hostility towards the "scientific outlook"; but it is not clear that he has anything better to put in their place. He provides a rich description of what human beings, as persons and agents, are. He challenges the so-called naturalists to do justice of such a description, but he does not really have a positive theory to offer which deals adequately with the relations between that description and our physical nature, let alone the theory after which he hankers, which will explain the moral pull of naturalism.

The second volume may have more that is positive to offer – an account of practical reason, for example, and the part that this plays in our understanding of people as social beings. There are also interesting and penetrating thoughts on political issues – on justice, freedom and the wrongness of thinking of people as atoms, independent of each other. Even here, however, he is clearest about what he is opposed to. Once again, there is a rich description of human beings, and there are splendid gestures towards drawing out the implications of that description for a number of political and social issues. Much of it remains, however, at the level of gesture or, in his own words, of "promissory notes".

Taylor has had a reputation for many years as a stimulating teacher. These essays will give some flavour of that. The breadth of thought is striking, even when the expression of it is casual. Readers will have their attention drawn to issues and ways of regarding them which they may not otherwise have thought of. Whether it all adds up to a satisfactory philosophical anthropology is more doubtful, and there may even be reason to doubt whether Taylor's "promises" can ever be fulfilled. Even as they stand, however, the papers have their own unmistakable value; they form an impressive collection.

D. W. Hamlyn

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A new beginning

Nineteenth-Century Religious Thought in the West, volume one
edited by Ninian Smart, et al
Cambridge University Press, £27.50
ISBN 0 521 22831 X

The 19th century "was a revolutionary time when the older theistic worldview, already under attack since the Renaissance and throughout the Enlightenment, gave way to a new, more variegated, more complex, circumstance for religious thought . . . Whether one sees these developments as monuments to human genius or perverse deviations from the theologian's proper task, there is no denying the extent to which even contemporary religious thought bears the mark of their influence. Whatever may obtain elsewhere, twentieth-century religious thought is very much the child of the nineteenth". No better justification is needed for this three-volume enterprise.

The essays in the first volume fulfil the editors' hopes that they would be more than summaries of historical developments. They succeed in bringing out what is of lasting value in their subjects. Each contribution has an excellent biographical essay appended to it, which gives guidance to further reading, with special reference to texts and studies in English. Some essays concentrate on exegesis; referring only obliquely to the connections between the subjects and 20th-century thought. Others devote sections to them explicitly. Three essays (Emile Fackenheim on Kant, Richard Taylor on Schopenhauer and Van A. Harvey on Feuerbach and Marx) stand out from the rest in excellence. By distancing themselves from their subject's language, these authors make the subjects they discuss of immediate and absorbing interest to us.

Despite not being strictly a 19th-century thinker, many of the century's problems were set for it by Kant in his attack on traditional metaphysics. At the heart of these problems is the question of what sense, if any, can be given to religious belief as a response to human finitude. It is by discussing Kant's recognition of this issue that Fackenheim seeks to reconcile Kant's insistence on duty as the motive for moral action with his account of belief in God and immortality. Can finitude be transcended in metaphysical systems? If religion is to seek refuge in philosophy, how are the absolutes of religion to be captured in ever-changing metaphysical categories?

Peter C. Hodgson brings out the tensions such a question created for Hegel and Hegelianism. Is the response to finitude to be rooted in religious feelings and sentiments, such as Schleiermacher's feeling of dependence? Certainly not, if "feelings" are given the impoverished treatment they receive from 20th-century emotivists and their successors. Schopenhauer's reflections force us to face the difference between genuine and deluded attempts to transcend finitude. When philosophy is brought to bear on religious responses, in this context, are those responses shown to be free of rationalistic criticisms, as Kierkegaard argued, or are they shown to be a "disease of language", as Feuerbach thought?

A disappointing feature of the collection is that little is said, explicitly, of connections with philosophy, as distinct from religion and theology, in the second half of the 20th-century. Yet, the connections are obvious. In the closing essay, Van Harvey says that we still await an impressive theoretical prosecutor of Feuerbach's notion of religion as symbolic projection. Such a prosecution would take us to the heart of issues concerning concept-formation in religion. It would be instructive to bring Wittgenstein's and Simone Weil's notions of primitive reactions to bear on the religious responses discussed by Kant, Schleiermacher, Schopenhauer, Kierkegaard and Feuerbach. For the connections between 19th and 20th-century thought which are made in this collection, however, we have every reason to be grateful.

D. Z. Phillips

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What do we know?

Relativism and the Social Sciences
by Ernest Gellner
Cambridge University Press, £22.50
ISBN 0 521 26530 4
Tradition and Innovation: the idea of civilization as culture and its significance
by H. T. Wilson
Routledge & Kegan Paul, £17.50
ISBN 0 7102 0009 9

Although these two books occupy the same territory – the territory where philosophy, anthropology and sociology meet, their authors are moving in opposite directions and at different speeds. At the heart of both is the problem of rationality: ours and others; present and past. For both the epistemological question: "How is it that we know what we know?" is also a sociological question. But Ernest Gellner asks it confidently, confident of himself and his culture; clear and precise in his answers. And H. T. Wilson asks it hesitantly, far from sure about his culture or his capacity to answer at all.

Gellner is concerned, principally, with science and then by extension with progress and innovation. Wilson is concerned with innovation and by extension with progress and science. One is a materialist for whom the world is real and our attempts to know it – in science – valid and successful. The other is an idealist for whom the world is what we construct, and therefore can construct differently, and for whom science is no longer a paragon.

Gellner begins his book with a question: "We know better – but how do we know that we know better?". Wilson ends with a set of rather different questions, the first of which asks about the nature of our culture and our capacity as social scientists to know and understand it reflexively. It is a question defined by a Wittgensteinian perception of culture as a form of life and defined also by Wilson's own argument that things can exist but still be incomprehensible, beyond our ability to name and describe them. The second and last questions are as follows: "Is there an answer lying hidden below the surface of the question: What could such a notion mean?, and if there is then what does *this* mean?". The regress looms infinite, and I suppose it is meant to. I can hear Gellner crying in his bath.

Wilson wants to understand innovation, not as an empirical fact – discrete, effective, explicable – but as a quality, a phenomenon. The concept of innovation which he seeks is beyond comprehension and beyond description. Such a concept needs to speak of possibilities and must not be limited by a definition which insists on making it the property of advanced industrial society, and of bureaucratic organizational structures and capitalist ideologies. Indeed innovation is not a property at all, nor the exclusive right of any one culture, especially our own. The institutionalization of innovation, its legitimation as an ideology of instrumental rationality, and its capacity to anaesthetize us from our past, our future and the worlds of others, has to be resisted and to be resisted philosophically.

This philosophy emerges laboriously, in bone-crunching prose, from a critical attention to the work of Wittgenstein, Weber and Durkheim. It has something of Hegel and much of critical theory. Innovation in our culture has become traditional. Reason is no longer rational. We have divided the world into the little bits and pieces of empiricism; we have lost sight of the whole. We have overlooked the possibility of reflexivity and praxis, the affirmation of both of which can transform our culture and undermine a Weberian pessimism. Our civilization is to be understood as one culture among others; our progress may not be real. Our commitment to innovation is no longer rational. Our social science, because it reinforces our social instrumentalism, is inadequate. And our world, suddenly and disastrously dependent on natural resources whose supply we can no longer control or guarantee, and which is entirely vulnerable to the products of its scientific advances, is in crisis. The new game is adaptation. Innovation is dead. We must learn from the others.

Gellner writes with a razor. His first essay on positivism and Hegelianism, which has its origin in the public debate between Karl Popper and Theodor Adorno in Tübingen in 1961, is simply brilliant. But it is his second, on the nature of rationality, which illustrates most clearly the differences between his position and Wilson's.

Instrumental reason is the key to the success of the western world. That success is undeniable and irreversible. It is to be valued. It is the achievement of, and the context for, science. But instrumental reason, if it is to work, needs boundaries. It needs and defines one world (and not a Wittgensteinian plurality of worlds), but at the same time can only work within limited portions of that world – those portions where evidence can be tested and aims defined. The problem, as Gellner puts it in this essay, is that the advance of instrumental rationality has increased the number of occasions when fundamental issues of principle or morality do in fact need to be decided. It would seem that instrumental rationality was reaching its limits; and Wilson would agree. But whereas Wilson is certain that something must change, Gellner is uncharacteristically indecisive. He is not sure what follows.

To be sure Gellner and Wilson live in different worlds: the one discrete, analytic, where concepts outrun the social: the other synoptic, synthetic, and where the social and the individual outrun concepts. In one Wilson is simply wrong – a romantic and a philosophical luddite. In the other Gellner is a symptom – of a disease called realism. It is probably incurable, a kind of philosophical AIDS.

The two would seem to be incommensurable. But meanwhile the world shudders on. Wilson has hope. Gellner has arguments. Maybe they should get together.

Roger Silverstone

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BOOKS

A special case

State and Politics in the USSR
by David Lane
Blackwell, £27.50 and £8.95
ISBN 0 631 13874 9 and 13873 0
Soviet Economy and Society
by David Lane
Blackwell, £27.50 and £8.95
ISBN 0 631 13875 7 and 13876 5
Soviet Politics 1945–53
by Timothy Dunmore
Macmillan, £20.00
ISBN 0 333 27569 1

In Alexander Zinoviev's satire on Soviet life *The Yawning Heights*, Slanderer (who of course generally tells the truth) declares that "All the traditional concepts of social science lose their sense when applied to Ibanskian society." David Lane rather assumes the opposite. For him the problems of the Soviet Union are comfortingly familiar, they are those common to industrial societies. The economy has to be managed, people have to be trained, needs and interests have to be aggregated and satisfied and state power must aim to stabilize and legitimate itself.

At this self-evident level there is little that is contentious in Lane's constant counsel to area specialists to take note of the problems common to all states, and all economies and societies based on modern industrial production. Our difficulties arise when he asserts (and he does so with equal constancy) that the *manner* and the *processes* through which these problems are resolved are essentially similar to those employed in western liberal democracies. The view adopted here is that the Soviet political system functions in a similar way to western ones", "the political process is essentially similar to other modern industrialized states." At this point even fervent comparativists might draw breath. The more dubious would demand to know what is involved in the notions of "political system" and "political process" as applied to the Soviet Union.

Lane does, in text and diagram, take us through the formal and constitutional channels through which power is exercised, making frequent homely comparisons with our own institutions. The exercise of state power, even of state power, does not, however, necessarily entail the existence of a political process or of properly political relationships. In assuming that it does Lane not only tends to debase the specifically political; he also fails to grasp the singular and peculiar nature of the Soviet polity. Individual, civic or political rights cannot (as Lane acknowledges) be claimed against society and state. Not only in constitutional theory but in everyday practice the exercise of rights is restricted to the pursuit of those general goals that promote the organic unity of state and society. There is then no legal or social space for individual and group autonomy or for habits of independence to emerge. The very preconditions for political activity are absent. All strata of the population (as Lane again astutely observes) are efficiently incorporated through family and educational socialization and through the potent benefits and sanctions that bind them to their work collective. Neither as consumers nor as citizens do the vast mass of the Soviet population have any open opportunities to express their interests so as to influence the process of decision-making or even to articulate grievances. One is, surely, entitled to question whether there is anything specifically political about an electoral system that provides no inputs whatever to the formulation of policy, or a system of government through popular representation that yields an inflexibly unanimous vote on all aspects of public policy. If this is a political system it clearly exhibits a rationale quite different from our own and a highly distinctive view of what politics is.

Lane's two books are ambitious in both scope and method, containing a mass of information presented in spirited narrative as well as in clearly tabulated and diagrammatic form. As such these are indeed substantial and valuable books. It is Lane's method, his mode of interpreting the evidence so copiously amassed, that fails to convince.

These problems beset the analysis of *Soviet Economy and Society*. Lane has an open sympathy for properly socialist economic and social structures and his vision of their ideal forms is central to his running critique of Soviet actuality. The difficulty, here again, is his unproblematical specification of what should count as socialist. For him socialism essentially consists in public planning supplanting the anarchy of the market, production for need, full employment, job security, narrow differentials in terms of consumption and the working class as the only legitimate source of state power. It is in terms of these criteria that Soviet practice is learnedly and often acutely scrutinized. Even in terms of this narrow definition of socialism there are evident problems. How, for instance, are people's differing needs and the hierarchy in which they are valued, to be articulated and aggregated so as to have a decisive impact upon the formulation of economic plans? This cannot be openly and effectively done in the absence of exactly those same preconditions that make political life possible. The predictable consequence is, as Lane puts it, that "Goods are produced in qualities and styles which suit the producers' 'plan maximization' rather than consumer needs." Throughout both volumes the crucial area that is ignored is the linkage between the state, the economy, and society. Lane repeatedly insists upon the constitutional and functional differentiation between the party as the vehicle of the working class and the lynchpin of state power on the one hand and the economic ministries or government on the other. Each is held to be relatively autonomous vis-à-vis the other and they are discussed separately in the two volumes. In this manner the real sovereignty of the party and its effective control of the whole governmental and economic apparatus is quite discounted. The crucial interplay between the party, the state and the economy is largely ignored.

Similar problems of a methodological and terminological nature emerge in Timothy Dunmore's assessment of politics in the last decade of Stalin's regime. Dunmore pursues the by now familiar revisionist thesis that there were more tensions, controversies and disputes behind the apparently monolithic facade of Stalinist Russia than is conventionally believed. What emerges is a picture of the conflicting fiefdoms of an ill-elaborated differentiation of function, and the increasingly assertive personalization of power by leading functionaries who enjoyed very considerable security of tenure and the consequent capacity to frustrate leadership objectives in some important areas. They were to be sure dependent on Stalin, but as Dunmore demonstrates he too was dependent upon them. Like Lane Dunmore leans upon a rather forced distinction between the functions and interests of the economic ministries (the "implementors") and those of the party (the "checkers"). The clashes between these and other groups constituted what Dunmore takes to be the stuff of politics, even a sort of pluralist politics. But the terms in which the argument is conducted are left woefully imprecise. Neither Lane nor Dunmore effectively refutes Slanderer's conclusion that "In its inner life the Ibanskian state is not a political individual, for there is within it no other independent and opposing individual."

Neil Harding

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State security

Third World Politics: an introduction
by Christopher Clapham
Croom Helm, £15.95 and £6.95
ISBN 0 7099 0757 5 and 0758 3
Government and Politics in Africa
by William Tordoff
Macmillan, £18.00 and £6.95
ISBN 0 333 34188 0 and 34189 9
Independent Africa and the World
by Peter Calvocoressi
Longman, £3.50
ISBN 0 582 29654 4

After around a decade and a half during which almost all textbooks on the politics of third world states were written from a "dependency" perspective, in which the machinations of world capitalism provided the dominant explanatory factor, it is with some relief that one can witness a new growth area of books in which the importance of indigenous factors has returned to the fore. These three books are all, implicitly or explicitly, part of this development.

Although Christopher Clapham's book has a wider focus, dealing with the entire third world rather than just Africa, it has certain features in common with the other two. All three are arranged along the same lines with individual chapters on colonialism, nationalism, government, the economy, ideologies and so on, and all three reflect growing disillusionment with the way third world states have been run since independence. From a common-sense, non-specialist viewpoint this may seem an obvious position to take but the over-optimistic self-delusion of many specialists has held sway for a long time and is not yet obliterated. Even now, despite all evidence to the contrary, some still regard the chaotic and contradictory events in a number of states as being part of the "transition to socialism" from which a new golden age will emerge at some unspecified time in the future. If the life of the citizens of the third world is to be improved the emphasis must be on the here and now or, as Clapham puts it, "the problem is not where you should be trying to go but how you should get there".

Nkrumah (centre) with the first all-African cabinet in 1954: from *End of Empire* by Brian Lapping (Granada, £14.95).

Clapham's book is by far the best of the three. Although it covers a more disparate group of states it is much the most coherent. As might be expected from an Africanist the book does have a bias towards Africa but many insightful comparisons are made with the rest of the third world. He concentrates "on the state and the dilemmas of those who run it"; and identifies the rulers' overriding dilemma as staying in power. To do this political elites must maintain both the state itself and their own role within it, neither of which are remotely easy tasks. To see this as taking precedence over "development" may seem cynical but it does accord with the reality of third world politics which is by and large a very rough and dangerous game. Thus "economic development policies are state development policies" because "the most important priority of economic management is the maintenance and consolidation of the state". The same principle applies to foreign relations because "what governing elites seek to do is manage the flow (of transactions with the wider world) so far as they can in order to maintain their own security"

For Clapham the third world states have, in the main, failed in the two basic moral tasks of providing for their citizens, physical security and the opportunity to express their own aspirations. This is undoubtedly a gloomy conclusion but entirely explicable within the principal motivations of the political elites. Overall this is a splendid book which should not only find its place on student reading lists but can be read with great profit by specialists within the field.

Government and Politics in Africa, on the other hand, is a great disappointment. Professor Tordoff has for many years been an outstanding teacher and writer on African politics but one would not know it from this book. It is a strange work which reads as though it has been written by a committee, such is the patchwork of styles contained within it. Of course, any book written on such a large topic will involve a great deal of drawing on the work of other scholars but here the eclecticism lacks any form of synthesis. The approach shifts about alarmingly depending on the source (always scrupulously acknowledged) from 1960s structural-functionalism to Marxism and everthing in between, thus there is no overall ideological and conceptual viewpoint. Although students will learn a great deal from this book they may also find it rather confusing.

Peter Calvocoressi's book is much the shortest and slightest of the three: there is for example a complete absence of footnotes or bibliography. It covers both the domestic and international aspects of African affairs but with rather different degrees of success. In terms of Africa's international relations this is really quite a useful book, lively, well written and informative. In terms of domestic politics it is less successful. Part of the problem is that it is littered with silly factual errors: for example the claim that Major-General Ironsi, the first military ruler of Nigeria, was an example of the "feudal .... upper crust in the North" when in fact he was an Ibo from the Eastern Region who was despised by and eventually killed by the Northerners. Mistakes and lack of attention to detail are important especially in an introductory book. No student, for example, who thought Ironsi was a northerner could begin to make sense of what was taking place in Nigerian politics in 1966.

John A. Wiseman

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Balkan miracle

A Short History of the Yugoslav Peoples
by Fred Singleton
Cambridge University Press, £22.50 and £7.50
ISBN 0 521 25478 7 and 27485 0

That Yugoslavia exists at all is something of a modern miracle: embodying a perennial defiance of the challenge of separatist nationalism and a dogged refusal to succumb to "Balkanization" in the heart of the Balkans, contemporary Yugoslavia cannot fail to intrigue by its very survival. By the same token, the bewildering physical, religious, cultural and political heterogeneity of the somewhat arbitrary territory which was christened "Yugoslavia" as recently as 1929 makes its history (to quote Fred Singleton) "the despair of tidy minds" and "an almost impossible task" to write.

This book is precisely what its title proclaims, not a specialist study replete with formal footnotes and academic apparatus but a synoptic "short history". Its select and critical bibliography is mainly English-language and right up-to-date, providing excellent encouragement to the general reader to follow up his initial interest. No claims to making an original contribution to the academic debate on Yugoslavia are advanced. There is, however, a firmer than usual emphasis on the impact of war, which implicitly (and surely justifiably) upgrades wartime experience as a determinant in the moulding of Yugoslav society.

Not a "popular history" in the conventional sense of the term, the book has an uncompromisingly narrative format and its presentation is consistently down-beat (though not without occasional flashes of wry humour). The approach is deliberately uncontroversial: provocative issues framed along the lines of "Tito – Last of the Habsburgs or First of the Yugoslavs?" are pointedly omitted.

As the title suggests, the "ordinary people" of Yugoslavia, for whom the author clearly has the greatest respect, are generally well served. Even so, there are gaps: for example, the female majority of the population (the product of a high male death rate sustained over centuries) gets short shrift, relegated to a derisory paragraph on almost the last page. And while this account could never be judged "dehumanized", it might be considered "depersonalized". Singleton has an understandably poor opinion of Yugoslav leaders across the centuries, whether tribal *hajduks* or communist "new class", prompting him to underplay the role of "personalities" in his history of the Yugoslav peoples. It may well be true that local nationalism lacked its Mazzinis and Garibaldis but colourful characters from Karadjordje to Djilas become disappointingly attiolated through this approach. Even the towering, surely charismatic figure of Tito appears unconvincingly shadowy and monochrome.

Pitched midway between specialist and popular levels, this is a conscientious and scrupulous survey of the inhabitants of what became Yugoslavia from classical times to the present day. The chronological stress is modern, with half the text covering the post-1918 period, one quarter the post-1945 period. The treatment is generously broad-spectrum, with integral (not cosmetic) sections on geography, economics and especially literature lending a satisfying sense of physical context and cultural perspective.

But the book's most valuable contribution must surely be in providing the most objective yet sympathetic survey of the Yugoslav peoples to appear for years. The author even manages to retain his exemplary evenhandedness when describing the Ustasha regime in wartime Croatia. His proven ability to subordinate a candidly-acknowledged "deep and abiding affection for Yugoslavia" to the professional discipline of a dispassionate treatment of Yugoslav history only enhances his achievement. In its almost unique impartiality, a strikingly un-Balkan account of the most Balkan of political communities!

Raymond Pearson

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BOOKS

Cohesive writing

Children's Writing and Reading: analysing classroom language
by Katharine Perera
Blackwell, £25.00 and £8.95
ISBN 0 631 13653 3 and 13654 1

The debate about the teaching of English inspired by the Schools' Inspectorate consultative document, "English from five to sixteen", has revived for some the whole issue of whether or not grammar should be taught in schools. Katharine Perera's book is about grammar, not the now long discarded traditional grammar but rather those insights that are provided by modern descriptive linguistics. As such it should make those who read it better informed for the debate. However, although the book's focus is undoubtedly linguistic analysis – the subtitle ought to have been its title – Perera is not advocating the teaching of grammar in schools. Rather, she thinks that teachers should master a considerable body of linguistic knowledge in sufficient depth to be able to analyse both children's writing and the books chosen for their reading.

Four fundamental questions arise from the author's main intention and the treatment of her subject-matter. First, is the amount of linguistic knowledge being advocated really necessary? Looking at Perera's approach, the dominant characteristic of the two substantial chapters on the grammatical structure of English (chapter two) and the main grammatical developments that take place between 18 months and the teenage years (chapter three) is the sheer volume of technical information to be mastered. Moreover, the background necessary to embark on such study has not been a part of pre-service training and is provided in very few in-service courses. What Perera proposes would require a full-time course with some sort of tutorial support or a part-time course based on the Open University model. But to expect the vast majority of teachers to assimilate all this and then perform their own analyses from scratch, even using such a clearly-written book as this, is unrealistic.

The second question is related to the first, but in terms of classroom time: will busy classroom teachers be sufficiently motivated to analyse individual children's writing in detail and assess the considerable amount of reading material used? Perera suggests that detailed analysis may not always be necessary, but this would seem to negate the attempt on the part of the teacher to master all that technical detail.

The third question centres on the selection of the most relevant linguistic information for writing and reading development. However, although Perera assumes that grammar is the key to school-age children's writing and reading development, it is probable that her emphasis is more a reflection of the inordinate amount of concentration paid to sentence structure by academic linguists rather than to the development of the child's control of meaning in written texts. More important than grammar is the development of features beyond that magic boundary of the sentence. Here, the author could have become more whole-heartedly involved with the work of Michael Halliday, who has provided two valuable concepts at the level of meaning: cohesion and register. Cohesion refers to the unity of a text within itself, how it hangs together as a whole; register refers to the text's unity with its setting – that is, the appropriateness of the language to its purpose or situation. Children must learn to write cohesively and in the appropriate register. But Perera devotes only four out of the 72 pages of grammatical description to cohesion; and register, as language varieties, fares little better.

The fourth and perhaps most controversial question relates to the tension between the emphasis on grammatical correctness using an academic linguistic yardstick and the creative aspects of writing. Perera notes the importance of such qualities as imagination and style in a few short comments, but because of a lack of balance in the book, teachers will perceive it as an invitation to re-emphasize grammar.

Despite these major drawbacks, this well-organized book will be a valuable addition to the range of books on applied linguistics for teachers: the chapter on the differences between speech and writing is particularly useful. Though more a book on applied linguistics than a book for busy practising teachers, it will no doubt become one of the many reference books for teacher trainers and undergraduates. For the moment, however, books looking closely at teachers' attitudes to writing and their teaching methods are probably more in need of attention than books on linguistic correctness.

John Chapman

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Teaching guide

Teaching Psychology: Information and resources
edited by David Rose and John Radford
British Psychological Society, £12.95
ISBN 0 901715 29 8

When I was at school I remember being told that the sign of an educated man is not that he knows all the answers but that he knows where to find them. Whether this was the articulation of a great truth or a ruse to get us to make more use of the school reference library, I'm not sure. But I've learnt over the years that, educated men apart, the saying certainly holds good for those of us in the teaching profession.

At all levels of education, the successful teacher has the happy knack of knowing just where to go for appropriate information and resources, and probably of no teaching subject is this more true than psychology. The exponential growth in psychological data in recent years, the proliferation of journals and microcomputers, the endless stream of books and new equipment and techniques, have made it impossible for the psychology teacher to keep abreast of anything other than specialist interests. The best that can be hoped for is access to a mental map of the subject that allows one to indicate relevant pathways to students, even if one has no time to tread them oneself.

As anything that helps in the construction of this map will be useful, I would predict a ready market for this book, which provides an account of the whole range of materials available to the psychology teacher. There are chapters on where to obtain and how to use microcomputers, computer software and psychological tests; on strategies for teaching personal/social skills and on do-it-yourself laboratory equipment; and on the use of literary resources and feature films in psychology teaching. Finally, the book surveys the literature on the teaching of psychology itself; and there are short sections on ethical issues and on careers and courses in psychology. Each chapter contains such features as descriptions and definitions of the resources available, hints on how they can best be used, and lists of addresses where they can be obtained.

Quite apart from the direct practical help that this book provides, psychology teachers from school to higher degree level will find it sparks off all kinds of ideas for making their teaching more interesting. Had you thought, for example, of teaching concepts of what is human behaviour and what is inhuman by enlisting the help of science fiction? Or of teaching psychological development through biographies and fiction? Or of approaching issues like depression or alcoholism or leadership through feature films? Or of giving students projects which involve building their own laboratory equipment? If you haven't, then prepare to be stimulated.

Of course, in any undertaking as ambitious as this, there are bound to be shortcomings and omissions. I for one would like to have seen a section listing the titles, publishers and scope of the leading English language psychology journals. A book of this kind would also benefit from an index, at least of the major topics covered; from a section written in John Radford's trenchant style offering guidance on syllabus construction in the context of the real needs of employers; and from a more attractive format. Now that psychology is such an internationally minded discipline, the titles and addresses of the main psychological societies worldwide might also have been a useful addition.

But these are quibbles. This is a book that all psychology teachers will want to have on their bookshelves, whether they teach on specialist psychology courses or simply offer psychology to other professional or general interest groups. There is nothing comparable to it currently available in Britain.

David Fontana

David Fontana is senior lecturer in educational psychology at University College, Cardiff.

A collection of essays on *Behaviourism and Learning Theory in Education* has been edited by David Fontana and published for the *British Journal of Educational Psychology* by Scottish Academic Press at £7.50.

The correct title of Penelope Francks's book, reviewed on April 26, is *Technology and Agricultural Development in Prewar Japan* (Yale University Press). And Evelyn Fox Keller's *Reflections on Gender and Science*, reviewed in the same issue, will be published by Yale University Press on May 23.

Acquiring language

Language Development in the Pre-school Years
by Gordon Wells
Cambridge University Press, £35.00 and £12.95
ISBN 0 521 26461 8 and 31905 6

The study of language development is mainly concerned with formulating and testing hypotheses about how the child discovers the structure of the language he hears. Since the vast majority of children acquire language without any apparent difficulties, and since children acquire any language with equal ease, it is assumed that there is considerable universal generality in the method of acquisition. Consequently, to study acquisition it is not necessary to study large numbers of children; a small number is sufficient. This line of reasoning has dominated studies of language development for the past 25 years.

Is universality a justifiable assumption? About 15 years ago Gordon Wells felt that apparent universality might be equally well accounted for by the social homogeneity of the children investigated up to then. A large and more representative sample of children might yield different results. Accordingly, he proposed to study such a large group in Bristol to determine whether there is indeed a common sequence of development; what variations can be observed; and what factors account for these variations. Much time and effort has gone into the Bristol study: here, at last, is the first substantive report of the results.

It is a disappointment. A huge amount of converging evidence in the past 15 years supports the universality assumption. So does the Bristol study. It has much less to say about the residual variation; and it has practically nothing to say about the causes of variation, although at several points, we are promised a further report on this issue.

Some 128 children between the ages of 15 months and 5 years in two overlapping samples participated in a longitudinal study. Data were gathered at intervals of three months for each child. On the day appointed for data-gathering, the child wore a small portable tape recorder programmed to come on for 90 seconds of recording at intervals throughout the day. In this way it was possible to sample speech in a variety of contexts. This research technique is unusual, perhaps unique to this study. It created formidable problems of technical design and several major and minor hiccups in the research programme.

From Alison Clarke-Stewart, Susan Friedman and Joanne Koch's *Child Development* (Wiley, £31.20).

The rationale for using the method was that it would yield a valid representative sample of conversation between the child and his normal conversational partners, in contrast to what the researchers felt to be the unrepresentative samples usually obtained in a continuous period of "play with mother". The issue of representativeness is important if one is using the samples as a basis for estimates of frequency of use. It is not important if one is attempting to discover what a child is capable of; in this case, the researcher seeks the situation that shows capability to its maximum advantage. However, despite the elaborate method of data collection, the major linguistic analysis is only concerned with the occasion on which a child first used a particular construction. "Play with mother" is a much easier, and probably a better, way to obtain the appropriate data for such an analysis.

One of the biggest headaches of naturalistic studies of language is the amount of data yielded. The researcher has two options. He can focus on selective aspects of the data that are of theoretical interest or he can attempt to use all of the data to obtain an overall view of the developmental process. The latter may seem the obvious course, but this is perilous. There are multiple levels of language and endless subtleties within and among those levels. There is the pragmatic level at which one analyses the types of utterance – questions, statements, commands, and so forth. There is the semantic level at which one analyses the ideational structure of the utterance – the relations among actors, objects, patients, and so forth. There is the syntactic level at which one analyses the grammatical structures – subjects, predicates, inflections, and so forth. There are multiple mappings among the levels, so that a command, for example, can be expressed by a variety of syntactic constructions. Faced with this at times bewildering complexity, most researchers have focused on a particular level and often on particular issues at that level. Cavalier as this may seem, it has been a relatively successful research strategy.

The Bristol study, however, went for scope and coded the data at each of the levels discussed in addition to noting its context of occurrence. Indeed, much of the group's efforts seem to have gone into the coding system. Apart from the inherent problems of devising a coding system, training coders, and checking reliability, they also undertook to store and analyse the data on a computer. In principle, this would be the ideal solution to handling a large amount of data: in practice, formidable problems were encountered. It seems, at times, that computerization actually held up analysis.

The present report is largely concerned with the background to the study and with the order of emergence of the coded constructions at the various levels. Order of emergence is identified by the first use of a particular structure, and a very large number of sequences of emergence and co-emergence is reported. Although some researchers will find this of interest, it does have a fatal defect that must limit its usefulness. "Emergence" is not the same as "acquisition"; and a theory of language development is concerned with acquisition. Structures and constructions can, and do, emerge initially in very limited contexts, and some considerable time may pass before the child can be judged to have mastered (and thus acquired) the structure or construction. Although the developmental relation between emergence and acquisition is, of course, of considerable interest, this issue was not tackled by the Bristol study.

The Bristol study made a tremendous effort to do justice to the complexity of language, persevering in the face of daunting difficulties. However, it has only succeeded in addressing one of its three major goals – unfortunately the one that least necessitated the monumental effort.

John McShane

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BOOKS

Precise measures

The Fundamental Physical Constants and the Frontier of Measurement
by B. W. Petley
Adam Hilger £28.50
ISBN 085274 4277

Fundamental physical constants such as the speed of light, the mass of the proton, the universal gravitational constant or the charge on the electron, have long stood as a challenge to both the experimental and theoretical physicist. For the experimentalist the challenge is to find ways of measuring the values of these constants so that they can be used both as touchstones against which the predictions of theory can be tested and as possible bases for units of physical measurement. For the theoretician the challenge is to develop theories which lead to correct quantitative predictions of the values of these constants or combinations of constants.

Aims such as these, of course, are not new, but during the past two decades tremendous advances have been made in metrology. The invention of the laser and the discovery of the low-temperature Josephson and quantum-Hall effects (which allow *quantum phenomena to be observed* directly) together with advances in solid-state electronics and the advent of space technology, have all combined to revolutionize the science of measurement. Not only has this resulted in a great deal of new interest in the measurement of the fundamental constants and led to major improvements in the reproducibility of most of the base units of the Système Internationale d'Unités (SI) but it has also opened the way to the implementation of important experiments which had previously only been conceived of as *thought experiments*. It has now been demonstrated, for example, that a clock carried all the way round the equator in an easterly direction, say, will on its return to its starting place, be found to have lost about 200 nanoseconds compared to a clock that has remained stationary on the surface of the Earth – just as predicted by the theory of special relativity.

The anomaly in the magnetic moment of the electron and positron (that is, deviation from the value predicted semi-classically from the above-mentioned constants) can be predicted with high accuracy by the theory of quantum electrodynamics. Indeed, the most recent calculations of this so-called "g-2" factor, in terms of a series of increasing powers of the atomic fine-structure constant, extend to ten significant figures. Recent experimental measurements using single electrons or positrons, which can now be confined in "magnetic bottles" for periods of up to a few days, have led to values of g-2 of similar accuracy and in good agreement with theoretical predictions. Such agreement provides a convincing confirmation of quantum electrodynamics and is a clear example of the way in which advances in measurement stimulate extension to theory.

Advances in theory which lead to predictions of the behaviour of matter that are beyond our ability to test experimentally soon become sterile. In the same way, an increasing accuracy of measurement is of little interest without there being either a clear practical application or a theoretical prediction to test. In this respect the new work in experimental gravitation and general relativity is of particular interest. For many years the whole field had remained somewhat in the doldrums. The results of observational radio astronomy and the advent of space technology, however, have stimulated many new ideas and brought within the bounds of possibility *experiments which had previously* looked hopelessly difficult. These include gyroscope experiments in a satellite in free fall in a polar orbit designed to test relativistic predictions of precession rates (of change in the direction of the Earth's rotational axis), and very large optical interferometers (with million kilometre mirror separations) to detect gravitational waves from rotating binary stars.

One of the results of the new interest in space-borne gravitational experiments has been a revival of interest in *Earth-bound experiments*. Gravity-wave detectors to detect events inside and outside our own galaxy are now under construction; indeed, some already in operation are designed to measure minute fractional changes in length (of the order of parts in ten to the power of 22) of the dimensions of the apparatus, which in the most ambitious experiments is about five kilometres. If, as seems reasonably certain, these experiments eventually reach the required sensitivity, the measurements will give a further powerful stimulus to theoretical cosmology.

This book thus provides a very timely review of the whole field of precision measurement. Its author is himself experienced in the measurement of fundamental constants and is a member of the staff of the National Physical Laboratory. What comes out very clearly is the close relation which exists between the advanced metrology needed to support an industrialized nation and the frontiers of physics. The Josephson and quantum-Hall effects, for example, which are now used to establish standards of voltage and electrical resistance, are also used to test fundamental predictions of quantum theory and to stretch our understanding of the behaviour of electrons in metals and semiconductors. New techniques of laser spectroscopy allow us to stabilize the frequency of a laser by reference to an atomic absorption line to an accuracy of a few parts in ten to the power of 11. And the use of dye lasers, with their wide variable-frequency range is likely to lead to even more accurate spectroscopic measurements of the Rydberg and atomic fine structure constants and hence to further tests of theory.

From the earliest times, long before the rise of science in the eighteenth century, nations established units for weights and measures for use in commerce and trade. Indeed, the influence and geographical extent of its system of units have often been a sign of the political (and in modern times commercial and industrial) power of a nation. Until quite recently units of measurement were based on material standards that were artifacts – for example, length standards ranged from iron bars set in a wall to the carefully maintained platinum/iridium metre bar kept in a vault at Sèvres.

Of the seven base units of the SI, only the kilogram remains so defined, as the mass of the international prototype kilogram kept at Sèvres (Convention of the Metre, 1875). The *kilogram has so far defied all attempts* to devise an adequate definition in terms of an atomic mass or fundamental constant. Not so for the metre, which was re-defined in 1983 as the distance travelled by light in a fraction 1/299792458 of a second, thus fixing the speed of light exactly as 299,792,458 metres per second. The second was re-defined in 1968 in terms of a transition in a ceasium atom. The ampère (1948) is defined in terms of the force between current-carrying conductors, and the kelvin (1960) in terms of the interval of temperature between absolute zero and the triple point of water. Petley discusses all these definitions, together with those of the other two base units – the candela (a measure of luminous intensity, 1979) and the mole (a measure of quantity of material, 1975), emphasizing particularly the future possibilities that might arise from new measurements of fundamental constants.

Of particular value for those not already familiar with the field of fundamental constants will be the care that the author takes in explaining the theoretical background of the constants and the significance of the various methods which lead to new experimental values. Although much of this material is very complex, it has been well summarized – making the book very suitable for non-specialists. It may come as a surprise to some to find that there is much in common between, say, the measurement of mass or Boltzmann's constant (relating thermal and mechanical quantities) on the one hand and the magnetic moment of the proton or laser spectroscopy on the other. The book should therefore highlight for readers the unifying themes which link such diverse fields – namely, the common use of the most advanced experimental techniques, the attention to detail and a preoccupation with the evaluation of the experimental uncertainties in a measurement. This book can be highly recommended for specialists and non-specialists alike.

T. J. Quinn

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London and County Bank, Chelsea, from *Sir Richard Blomfield: an Edwardian architect* by R. A. Fellows (Zwemmer, £12.50).

Surface processes

Geomorpology
by R.J. Chorley, S.A. Schumm and D. E. Sugden
Methuen, £17.95
ISBN 0416 325904

The face of the Earth is shaped by geological forces acting within the crust and by surface processes driven by the energy of waves and tides, wind and ice, and by the action of running water. The scientific study of the relationships between Earth surface processes and forms, now and in the past, is called geomorphology. It is a subdiscipline of geology in North America and of physical geography in Western Europe.

Although Pliny The Elder was probably the first recorded geomorphologist, with his observations on hillslope and river erosion and transport in the first century AD, it was James Hutton, and later Charles Lyell who laid the foundations of the subject. Lyell explained geological history in terms of contemporary surface processes, adopting the principle of uniformitarianism – the present as the key to the past. Towards the end of the last century G.K. Gilbert, fresh from his travels in the American west, established the basis of modern fluvial geomorphology, and William Morris Davis established the first comprehensive framework for the study of landforms.

Davis's "cycle of erosion" was a deterministic model of landform development as a function of time, given a starting point of tectonically induced topographic relief. Davis's ideas were widely taught, and were applied to landscapes throughout the world by his students and followers. Some of his students, however, such as Cuvillier-Sargent in France, and Passarge in Germany, developed quite different ideas, emphasizing the importance of climatic geomorphology. Climatic geomorphology was developed further by Peltier in the USA, and by Tricart and Cailleux in Europe, who also developed the idea of morphogenetic regions, and the importance of Quaternary geomorphology, in which climatically induced fluctuations of sea level and climate were the pacemaker of landform development. Meanwhile, in Russia, Morozov and Obruchev had developed the concept of genetic morphology, in which landforms were seen as the result of a complex interaction between climate, tectonics, and lithology, which could be unravelled by careful field study. In Germany, Penck had developed a model of landform development which was in complete contrast to that of Davis, and which was based on the concept of the parallel retreat of slopes. Penck's ideas were developed in the English language by King, who also emphasized the importance of Quaternary geomorphology in his synthetic study of the landforms of East Africa.

The 1960s saw the publication of a number of seminal texts in geomorphology, including Leopold, Wolman and Miller's *Fluvial Processes in Geomorphology*, which introduced the ideas of British and American fluvial geomorphologists into the English literature, and Chorley and Kennedy's *Physical Geomorphology*, which introduced the ideas of Russian genetic morphologists into the English literature. Chorley and Kennedy also attempted to bridge the gap between genetic (structure and lithology) and process-oriented geomorphology, and to place both within a systems framework. Chorley, Schumm and Sugden, all of whom have played crucial roles in this period of growth, have managed to pull together much of the best work in the subject during the past hundred years into this lucid, well-structured, and readable undergraduate textbook. Starting with the essential concepts, they go on to present the geological basis (structure and lithology), geomorphological processes, climatic geomorphology and, more briefly, applied geomorphology. This material is arranged into 170 sections in 20 chapters, each of which is well written, well documented and well illustrated. The diagrams, all printed in their original published forms, add variety and help to sustain interest. The treatment is thorough, largely non-mathematical and quite up-to-date, without being unduly controversial, making it an ideal undergraduate textbook.

The most effective feature of the book is the good coupling of process and form – tried, unsuccessfully of late, by other authors. The least effective feature is the scattering of the relationship between vegetation, process and form across many chapters. As this so critically underpins the climate-process relationships, which are established mainly inferentially in the book, I would have preferred it to have been highlighted more throughout or brought together in some way.

This book represents a remarkable achievement and will form the staple diet of undergraduate geomorphology for many years to come.

J. B. Thornes

Professor Thornes is head of the department of geography at the University of Bristol.

Molecular orbitals

Orbital Interactions in Chemistry
by T. A. Albright, J. K. Burdett and M. H. Whangbo
Wiley, £63.25
ISBN 0 471 87393 4

Although molecular orbital theory has frequently been used as the basis for obtaining a unifying view of related chemical phenomena, rarely can such a wide range of ideas of molecular science have been brought together as they are in this very important book.

Robert Mulliken introduced the way of thinking about the electrons in molecules in a manner paralleling the familiar picture for atoms: each electron has properties explicable in terms of its own individual mathematical function or orbital. In atoms we have 1s and 2p electrons and in molecules there are sigma electrons and pi electrons. Trouble, in the form of a schism between theoreticians, came when the computer provided a means of calculating these individual electron molecular orbitals. Some theoreticians do accurate calculations which give reliable numbers for properties such as bond lengths; others prefer to provide qualitative or semi-quantitative pictures aimed at gaining an overall understanding rather than numerical precision.

To an extent, the two camps are further split into those researchers who work on small molecules and those who work on large molecules. Although Albright, Burdett and Whangbo belong to the second camp, they none the less build bridges towards the numerical calculators as well as linking organic and inorganic chemistry and organometallic chemistry with the solid-state (which is treated as a giant molecule). Working very much in the tradition of the 1983 Nobel prizewinners K. Fukui and R. Hoffmann, they think of orbitals in terms of diagrams rather than numerical coefficients.

Throughout the book, the aim is to provide global ideas which lead to a qualitative understanding of the electronic structure of molecules and their reactivity. The molecular orbital diagrams are based on ideas of perturbation of idealized models and the all-powerful concepts of symmetry: two identical positions in a molecule (say above and below a benzene ring) must have identical electron density. As electron density is given by the square of wave functions, the individual functions or orbitals must be the same in the two equivalent positions in space or merely have opposite signs. In addition to these theoretical tools, semi-empirical notions such as electronegativity and overlap are used. The larger molecules are understood in terms of fragments, but *the orbital* interaction model is based on a delocalized picture not just on simple ideas of bonds between pairs of atoms.

The text is roughly divided into three sections, presumably reflecting the authors separate responsibilities. The joins, however, are hard to spot, and the book reads as a single work. The first part reviews molecular orbital theory and prepares the tools which are then used in sections covering organic molecules and (briefly) solids. Inorganic and organometallic problems are then discussed, along with the chemistry of clusters.

Because it unifies so much chemistry, the book should be widely read and used. Although it is suggested that an undergraduate chemical background combined with introductory quantum chemistry would be sufficient preparation, the density of the contents probably means that the main beneficiaries will be working chemists, graduate students and postdoctoral workers. No doubt, however, they will be real chemists: men and women who do experiments which they want to understand. Perhaps the only danger is that such people will look at the section on their own type of molecule and not wade through well over 400 pages replete with examples. The concept is so good that there must be a case for producing an inexpensive student edition which would extract the meat and use a few instances to get the message across to a wider audience.

Graham Richards

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T. P. Coultate is senior lecturer in applied biology and food science at the Polytechnic of the South Bank, and not as stated on page 24 of last week's issue.

BOOKS

Promising prose

The Native Tongue and the Word: developments in English prose style 1380–1580
by Janel M. Mueller
University of Chicago Press, £25.30
ISBN 0 226 545628

In her remarkable 15th-century autobiography Margery Kempe recalls how once at Canterbury she responded to an old monk's challenge of "What canst thou say of God?" by repeating a story from scripture. Margery's familiarity with the Bible provokes suspicion, the situation grows sticky, and eventually she is pursued out of the monastery by people shouting "Thou shalt be burnt, false Lollard!" Such distrust of scriptural allusion had not always prevailed, and Janel Mueller's study of English prose style ends after the Reformation with Lyly's Euphues declaring in prose marbled with scriptural allusion "Heare therfore the great comfort following every leafe and line of the Scripture".

The influence of the Bible on English prose style ("scripturalism"), established in the 14th century, partly suspended by fear of heretical misuse of scripture, but then triumphantly renewed by the reformers and their successors, is one of the unifying concerns in this survey, which also attempts to shift the horizon of what we recognize as modern English prose as far back as the later 14th century.

The sophisticated use of vernacular prose in Anglo-Saxon England set alongside the slow reemergence of English in the post-conquest centuries has long made the true nature of the continuity of English prose style controversial, not to mention the divergence of view over the establishment of standard English itself. Mueller rather discounts earlier views that the extensive translating in later medieval England from Latin and French sources must have resulted in imitation of Latin and French patterns. The finest late medieval English prose is now seen to be that which remains true to the feeling of the native language for patterns of conjunctive sentence forms.

Apart from the mystical writing of Richard Rolle, Mueller naturally finds some of the earliest biblical influence on English prose style in the Wycliffite sermons, where reverence for the authority of the Bible produces prose steeped in scripture and influenced by its patterns. As an example of literary excellence, it is Walter Hilton's achievement which emerges most strongly, especially in his late 14th-century work of counsel for contemplatives, *The Scale of Perfection*. The accessibility, measuredness and expressiveness of Hilton's style and teaching reflect his response to the introspective portions of St Paul's Epistles and to such Old Testament compositions as the Psalms.

Having established the potential and the restraints for writers in English prose in the first phases of its sustained use, Mueller surveys its later 15th-century use by such writers as Reginald Pecock and William Caxton. Their achievements may seem not to fulfil that extraordinary confidence in the English language of the Wycliffite Bible translators, who acted on their belief that a God who had made saving knowledge of Christ necessary had also made human languages capable of receiving and transmitting this necessary knowledge. The translator Nicholas Purvey found in the English language a special capacity for openness, communicability, in its sentence forms – part of the "modernity" of English even at this period – and although Lollard aims for language use may have foundered, their sense of the potential of English was taken up more widely, as Mueller shows. In some of the most characteristic late medieval styles – the use, as by Caxton, of word-doubling and pairing, or the increasing use of the "aureate" style – there is that enduring tension between plainness and elaboration in English style which Mueller finds between the vernacular "scripturalism" of Tyndale and More's humanist and Catholic allegiance to Latinity. With Cranmer, however, we find a satisfying combination of Latinate features with English sentence-forms to establish authoritative religious expression.

In this lengthy book of over four hundred pages, Mueller is able to illustrate with the ampleness which analysis of prose requires, in order to produce a needed and up-to-date survey – positive yet balanced in tone – of the history of style in English at a crucial period of change.

Barry Windeatt

Barry Windeatt is fellow and director of studies in English at Emmanuel College, Cambridge.

An illustration from the title page of Thomas Middleton's *A Game of Chess*, probably published around 1625, as reproduced in *Illustrations of the English Stage 1580-1642* by R. A. Foakes (Scolar, £30,00).

Literary revolution

The Collected Essays of Christopher Hill
volume one: Writing and Revolution in 17th century England
Harvester Press, £28.50
ISBN 0 7108 0565 9

This is the first of a projected three-volume collection of Christopher Hill's essays (*Religion and Ideas* and *English People and Politics* are to follow). It comprises 15 essays. Of these, the introduction (on "The Pre-Revolutionary decades") and conclusion are written especially for this volume, and the essay on "Censorship and English Literature" is published here for the first time; the remainder are (sometimes substantial) revisions of occasional pieces composed over the last thirty years or so. The net is widely cast: it draws in the prose of Martin Marprelate, the Levellers, Defoe and Sir John Berkenhead; the poetry of Wither, Milton, Marvell, Quarles, Benlowes, Vaughan, Traherne, Butler and Rochester; the diaries of Evelyn and Pepys.

Such gleanings from a scholarly lifetime would ordinarily make for a somewhat disparate collection of uneven quality. Not so in this case. There is no one piece which does not merit republication, and throughout there is the distinctive drive and assurance of Dr Hill's method: the marvellous combinations of quotations, the density of annotation, the generosity to other scholars, the summary and witty (but never cruel) judgements, the facility in generalization which derives from a synthetic understanding as great as that of the period, above all, the sense of a compellingly single-minded argument holding the book together.

The premise of the entire collection is that it is no more possible fully to appreciate 17th-century literature without an understanding of its history than it is to understand its history without an appreciation of its literature. Dr Hill's target is hence the "gentlemanly aestheticism" which, making no historical concession, divorces artistic endeavour from temporal context. Such exclusive critical concentration upon texts alone runs not only the risk of misreading but the graver risk of misconstruing the nature and function of the texts themselves. Proceeding as though, in the autonomous literary world, all and everything was equally possible and the author (if he be allowed to exist) a free agent, it ignores the social and political constraints which imposed upon literary composition far more pressingly than notions of artistic integrity. The effect of censorship in particular, Dr Hill emphasizes repeatedly, has been seriously underestimated: "Those who believe we should study only the words on the page, only texts, do not ask themselves whether there were certain words, or certain ideas, which could not be printed, and others which of conventional necessity had to be".

Dr Hill, then, seeks to set all his authors back in their contemporary context. That context is presented in terms of the opposition between innovative radicalism and oppressive authoritarianism which it is Dr Hill's achievement to have persuaded us is the essential feature of 17th-century history. It is an extraordinary, perhaps unparalleled, achievement: to take a century already especially favoured in its historians, and to replot it for us. "Monsterian anarchy" has moved centre stage; the great themes of rationalism, constitutionalism and scientific advance have yielded to enthusiastic insight and prophetic rapture; and the previously half-witted and irrelevant fringe fanatics are now cast as the protagonists while puritan and cavalier alike play out their equally conservative and politic roles in the wings.

Since the crucial event of 17th-century history is thus the English revolution and it is radicalism which defines that revolution, to set the literature in its historical context is to trace in it responsiveness to, and reaction against, that radicalism. It is the former which chiefly interests Dr Hill. He argues that this responsiveness was such as to create a literary, no less than a social, political and economic, revolution. to this end, he adduces the preoccupation of Renaissance drama with the duties of monarchy and the inadequacies of kings, the corruption of courts and the predicament of subjects. He champions the contribution of radical pamphleteers to the development of prose style. And he finds affinities with radical thought not only in Wither, Milton and Marvell, but also, where we should less expect to find them, in the "radical" royalists Butler and Rochester.

To read Dr Hill is hence to discover *that familiar authors* are intriguing and fascinating in new and unexpected ways: Henry Vaughan, for example, appears not as a neo-platonist and hermeticist, but as a disillusioned royalist. And yet we may still wonder whether their various degrees and kinds of radicalism have quite the significance claimed for them. It is salutary to be disabused of Traherne's reputed high-churchmanship, but that he argued against Ranters more obviously distances him from them than shows he "must ... have been influenced by them". It is good to learn that Butler had more than mere prejudice in his head, but if to be in touch with new science, tinged with Hobbism, anticlerical and unimpressed with Charles II is to be radical, why, so were most Englishmen: the epithet has become so all-encompassing as to be virtually redundant. The seriousness of the misgivings in Renaissance drama are well evidenced, but to test an institution is not necessarily to undermine it. Certainly, "the divinity that doth hedge a king is contrasted with the all too human attributes of some monarchs", but it remains the ideal of kingship which haunts our dramatists. If the two parts of *Henry IV* are a questioning, rather than a vindication, of true kingship, it becomes very difficult to make sense of Shakespeare's largest dramatic design, which predicts its own culmination in the coronation of a just and heroic king.

We may wonder, too, how far the pursuit of heterodoxy aids critical discrimination and evaluation. Dr Hill holds that the lifting of censorship was "the most significant event in the history of 17th-century English literature". He undoubtedly shows that the effect of censorship falsifies our sense of what was being thought, and that its suspension is hence significant for the history of ideas. But are we to believe that, when both Shakespeare and Milton wrote under the eye of the censor, censorship had debilitating *literary* effect, and that our literature would have been richer without it? Dr Hill couples Milton and Marvell as men united by their beliefs, and yet they are poetically as far apart as two contemporaries could be: what, then, is the bearing of their shared convictions upon their distinct poetic identities? Wither and Milton are convincingly shown to have been saying much the same sort of thing, yet Wither said it ephemerally, Milton enduringly: what, then, has their matter to do with their poetic quality? Is there, perhaps, *a place for "gentlemanly aestheticism"* after all?

N.H. Keeble

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Grammar schooling

The Politics of Language 1791–1819
by Olivia Smith
Oxford University Press, £19.50
ISBN 0 19 812817 7

The way in which the grammarian's mind reveals itself in his choice of examples would probably repay study. Such a thought is suggested by some instances in this readable book. On the one hand, there is that champion of orthodoxy, *Lindley Murray*, recommending us to consider the grammar of the sentence, "Patriotism, morality, every public and private consideration demand our submission to lawful government"; and on the other, William Cobbett, in his Grammar of 1819, written in letter form to his 14-year-old son, inculcating a hatred of tyrants with the example: "A verb is called active when it expresses and action. . . . as, 'Sidmouth imprisoned Benbow'. It is Olivia Smith's contention that language and politics were exceptionally closely aligned in this period of harsh repression; and this would seem to be borne out by the fact that several of the writers on language she considers, Thomas Spence, John Horne Tooke, William Hone, and William Cobbett, underwent trial and/or imprisonment for offences against the establishment.

The large number of grammars published from 1750 to 1820, by self-appointed grammarians as various as John Wesley, Joseph Priestley, and William Hazlitt, was undoubtedly the outcome of a rather pragmatic wish for refinement in speech and writing. It was an essentially elitist movement; and the linguistic hegemony of an elite that had been asserted by Dr Johnson's *Dictionary of 1755* was felt to be irksome by the turn of the century, in the aftermath of the French Revolution. According to Ms Smith, it was Thomas Paine, in *The Rights of Man*, who successfully employed a less classically-based, more vernacular language, in a manner which disproved its alleged limitations. His tone is established by such devices as the pronoun "we", conveying the illusion of constructing the argument along with his reader. This is very different from the lofty, out-of-reach style of Paine's chief opponent, Burke: "Where a man is incapable of receiving benefit through his reason, he must be made to receive it through his fears". Hannah More was more moderate in her stance: she hoped that conservative pamphleteers would provide "something which will give the idea of a tall man stooping". At the other extreme, William Cobbett, in his Grammar especially, takes trouble to ensure that his young reader has a high opinion of himself: "I need not tell you, that *I was working* means the same as *I worked*, only that the former supposes that something else is going on at the same time".

Each side had a linguistic theorist. For the 18th century there was James Harris, whose *Hermes, or, Philosophical Inquiry concerning Language and Universal Grammar* appeared in 1751, and incorporated conservative ideology within a philosophy of language. For the new century there was Horne Tooke, whose *Diversions of Purley* (1798 and 1805) have hardly kept their interest; but the book was influential in various ways. In matters of Anglo-Saxon, Tooke was a chauvinist; and much more of an authority on the subject than Dr Johnson. Moreover, he was able to show, by reference to early English texts, just how acclimatized the suffixes of Greek and Latin had become. In this way, the boundary between primitive and civilized languages was to become less clear. A favourite word of Tooke's was *abbreviation*, which in its syntactical implication connotes ellipsis. Later grammarians like Cobbett, Hazlitt, and the American Noah Webster gave more attention to ellipsis: whereas the more orthodox earlier authorities had concerned themselves only with complete, and sometimes over-symmetrical, *sentences*.

This levelling tendency in language, this challenging of the dichotomy between primitive and refined English, has obvious reference to Wordsworth, Coleridge, and the Preface to the *Lyrical Ballads*; and the Preface does not disappoint, advocating that the language and the sensibilities of the various classes are fundamentally alike, except that the humblest hold their feelings and their language in a purer state.

William Cobbett, like that other writer on country matters later in the century, Richard Jefferies, had a foot in both camps. He praised Hannah More's palliative tracts at first, but soon changed his tune. Hannah More's moderation seems to have offended both sides: *The Anti-Jacobin Review* vehemently attacked her for educating children in the Mendip valley. She succeeded, according to the author of this book, only when the poor were pathetic and manipulable.

This is an intelligent book. The subject is limited, but it is one that throws various sidelights on the age *under consideration: Ms Smith* writes with competence and flair.

K. C. Phillipps

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BOOKS

AMERICAN STUDIES

Anarchist legend

Emma Goldman: an Intimate Life
by Alice Wexler
Virago, £12.95 and £5.95
ISBN 0 86068 675 2 and 6809

For nigh on thirty years the name Emma Goldman was synonymous for the bulk of Americans with subversion, sexual license, and violence. From her arrival in America from Russia in 1885 at the age of 17 until her deportation during the red scare of 1919 had she not associated with every major threat to public order and decent values? Co-conspirator with Alexander Berkman in the attempted assassination of Henry Clay Frick of the Carnegie Steel Company, defender of Leon Czolgosz, the assassin of President Mckinley, perverter of the constitutional guarantee of free speech, supporter of the lunatic fringe of the labour movement, and, not least, advocate of birth control and sexual licentiousness – the mark of this incendiary and seemingly ubiquitous demagogue was to be found wherever decency was being trampled under foot.

This version of the "Red Emma" legend contained at least one truth. Emma Goldman was indeed a tireless promoter of anarchism. In her extensive lecture tours, in her publication *Mother Earth*, in her fund-raising drives for unpopular causes, and in private letters, she hammered away at the theme of liberation from the oppressive constraints of all forms of authority. Her commitment was so uncompromising and her ability to engage an audience so impressive, that another legend has adhered to her, that of the superwoman radical who successfully absorbed her private life into the public cause. Even those on the left who disagreed with her felt bound to grant her integrity and consistency. And if others hadn't done it for her, Emma Goldman created her own monument to her career in the form of a thousand page autobiography which in its very fullness and frankness creates both opportunities and problems for the biographer.

Alice Wexler seizes her opportunities and negotiates the problems with skill and sensitivity. Despite an unpromising subtitle, which seems to imply an elevation of the purely personal aspects of Goldman's career, Wexler employs recently disclosed evidence about the inner life of Emma Goldman in a way which enriches our understanding of this rebel with a cause. The source in question is the exchange of letters with Ben Reitman, a doctor-cum-hobo with whom she had a relationship of astonishingly erotic intensity. The explicitness of sexual detail in Goldman's outpourings, from which Wexler quotes liberally, has excited the interest of reviewers and will doubtless attract not a few readers, but Wexler's point is not about Goldman's sexual habits but about the driven nature of her passion. "That so independent and strong a woman as Goldman – and so ardent a champion of free love –", she writes, "should find herself caught in a relationship of deep erotic dependence suggests the continuing power of those unconscious 'internal tyrants' that Emma herself so eloquently denounced". The conflict within Goldman between the impulses towards freedom and dependence can be explained in part by her early sufferings as an unwanted and unloved child, but, as Wexler observes, it also dramatizes the contradictions experienced by many women at this moment of transition from the Victorian to the modern era: "the conflict between masochistic 19th century values of self-sacrifice, submission, and dependence . . . and the modern values of assertion, self-expression, and independence associated with the 'new woman' of the early 20th century". Furthermore, Wexler concludes, the same dynamic involving a simultaneous drive for self-affirmation and martyrdom, a longing for acceptance and an attraction to persecution, informed Goldman's political life.

That Wexler avoids crudely collapsing Goldman's politics into sex and her sex into politics says much for the intelligent restraint with which she handles this theme. While it is true, as Wexler points out, that Goldman's career illuminates both the politics of sexuality and the sexuality of politics, this is not to say that her public career can be regarded as a mere precipitate of her sexual chemistry. After all, Goldman and Reitman eventually drew apart, and in the course of a long life and many intense relationships Goldman kept unswervingly to her goals. It is arguable in any case that her most significant relationship was with Alexander Berkman, a fellow Russian-Jewish exile whom she met in 1889 and stood by until his death in the late 1930s. Because Berkman consistently stood at the cutting edge of the anarchist movement and because of Goldman's unstinting admiration for the sacrifices he made for the cause – he spent 14 years in prison for his attempt on Frick's life – her bond with him raises the central and troublesome questions about the nature of anarchism. No biographer can avoid facing the issue of violence.

Emma Goldman: Internal tyrants

Wexler's conclusion is that Goldman never fully sorted out her ideas about the value and justification of the "attentat". While never herself openly advocating assassination, Goldman almost always defended those who committed it, in Berkman's case even after he himself had had second thoughts about the principle that "true morality deals with motives, not consequences". On this principle purity of motive can sanction any means to a desired end. But, as if aware of the ultimate sterility and life-denying character of this position, Goldman generally reverted to the proposition that "the tremendous pressure of conditions", not anarchism, was responsible for acts of political violence. She was thus left, Wexler notes, "describing political assassins contradictorily as the victims of desperate circumstances . . . and as men of superior will and conscience". There is no greater paradox in Goldman's life than the coexistence of generous human sympathies – she was a trained and devoted nurse – and her willingness to countenance, in certain circumstances, the ultimate act of human destruction. Can terrorism ever have a human face? To say yes is to believe that the circle can be squared.

One would like to conclude that Wexler has given us a definitive life of Emma Goldman, and there is no doubt that she adds considerably to the story as it has previously been recounted by Richard Drinnon in *Rebel in Paradise* (1961). Wexler's is a biography which speaks to and to some degree grows out of contemporary feminist concerns while also doing justice to the history of anarchism. But unaccountably the biography ends with Goldman's deportation in 1919, leaving her twenty years of exile in Europe untouched. It is true that Goldman's influence was at its height during her years in America, but quite apart from the inherent interest of her time in post-revolutionary Russia (1919-1921) and her activities in connection with the Spanish Civil War, the years of exile have a close bearing on her American experience. Her disillusionment with Soviet Russia, which provoked such a stormy reaction within the American left, reveals much about Goldman herself and about the history of American radicalism between the wars.

Perhaps more important, if one is concerned with the "intimate life", is the evidence of Goldman's continuing attachment to the America which had done its best to be rid of her and her message. Unlike Berkman, who had never come to consider America as "home", Goldman held out hopes of being able to return permanently and even anticipated that publication of her autobiography in America (1931) might help towards that end. In an article written for *Harper's* in 1934 during the one brief return visit she was permitted to make, she wrote that "I feel the freshness of the American approach and the untapped stores of intellectual energy resident in the country offer much promise for the future". The quotation comes from Drinnon's *Rebel in Paradise* and it is there that one must look for an account of Goldman's later life and for an explanation of the hold which America exerted over her. In choosing to end her biography at the water's edge, Wexler for once fails to seize her opportunities.

Richard Crockatt

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Cultural dig

Emily Dickinson and her Culture: the soul's society
by Barton Levi St Armand
Cambridge University Press, £22.50
ISBN 0 521 26267 4

Although the author of this study professes to write as both critic and cultural historian, this is a work of scholarship rather than of criticism. Professor St Armand has tried to produce not merely a cultural biography but "a biography of American Victorian culture", and to "reimmerse" Emily Dickinson's texts "in the nourishing context of their culture, and often to attempt to read her poetry as a sympathetic contemporary would have". He compares his work to that of an archaeologist and regards Emily Dickinson's writings as "a fact of material culture, as a supremely artistic fragment saved from the ideological wreckage of her time." His aim is to demonstrate that her work "was of her age as well as beyond it."

He is unimpressed by recent attempts to establish an order in her poems on the basis of the fascicles in which parts of the poetry were arranged; and though he accepts William Shurr's discovery of a consistent romantic narrative running through the chronological sequence, he finds the arrangement of the whole *oeuvre* random or patchwork and endorses Thomas Wentworth Higginson's original classification of these poems as "the Poetry of the Portfolio", a form clearly distinguished by Emerson. The popular form of the artist's portfolio was the scrapbook and St Armand makes extensive use of the surviving scrapbook of Emily Dickinson's friend Mary Warner as a means of discovering the sources of the poet's themes in contemporary culture.

Both the scrapbook and the poems contain three different cultural levels, "folk, popular, and elite", and Mary Warner's scrapbook is of particular value in leading the student to 19th-century examples of the first two levels, which the modern reader may fail to recognize in the poetry. Professor St Armand devotes three chapters to tracing Emily Dickinson's responses to 19th-century popular culture as expressed in sentimental attitudes towards death, romantic love, and the afterlife, with particular reference to the verses of Lydia Hunt Sigourney ("the sweet singer of Hartford"), the romantic novels of Harriet Beecher Stowe, and Elizabeth Stuart Phelps's bestselling consolatory picture of heaven, *The Gates Ajar*. He is not engaged here in specific source-hunting but in attempts to establish the popular themes which provide the subjects of many of Emily Dickinson's poems, even when she used them for satirical or bitter reaction.

The chapter on the folk elements in Emily Dickinson's art gives an ingenious account of the diverse and unlikely elements from which the conception of the Calvinist God that appears in her poems was formed: images of the wrathful Jehovah in Watts's *Hymns*, the poet's aversion to cats, and Harriet Prescott Spofford's sensationalistic story "Circumstance". The materials in this chapter make more understandable the curious mixture of rejection and acknowledgement of the God of "Circumstance" which the poems convey.

The last three chapters of the book examine the reflections in Emily Dickinson's work of the "elite" culture of her day – the writings of the poet-naturalists of the *Atlantic Monthly* in the 1850s and 1860s, the aesthetics of the Hudson River School of landscape painters, the theorizing of Ruskin – and the place of her sunset poems in her conception of what St Armand calls her "mystic day". Particularly cogent is the chapter describing her intellectual and spiritual debt to Thomas Wentworth Higginson, a man who has often received a bad press from critics because of his initially condescending and discouraging response to her appeal for guidance. Yet she assured Higginson that he had saved her life. Professor St Armand's account of this "healthy-minded" nature writer and stylist and his value to the "sick soul" of the isolated artist makes this claim comprehensible at last.

The solidity and scope of this cultural history of Victorian America provide the basis for a number of interesting commentaries on specific poems. For all their individuality, Emily Dickinson's poems gain greatly in clarity when one has heard the now distant voices to which they respond.

J. W. Harper

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Concealing the truth

History, Ideology and Myth in American Fiction 1823–52
by Robert Clark
Macmillan, £22.50
ISBN 0 333 35134 7

Dr Clark's is a challenging, provocative, and revisionary book. Its opening three chapters construct a context for the view that the fiction of the major ante-bellum American novelists is not to be seen as "romance", and therefore unrelated to the real politics and economics of the society in which it was produced. The final three chapters discuss individual works by James Fenimore Cooper (*The Pioneers*, *The Last of the Mohicans*; *The Deerslayer*), Nathaniel Hawthorne (*The Scarlet Letter*, *The House of the Seven Gables*) and Herman Melville (*Moby Dick*) in order to show that to fail to recognize the politics of these works "becomes a failure to understand their central literary significance".

Should one be surprised at this attempt to link classic American fiction to some of the historical circumstances within which it was written? I think not. For a contemporary literary scholar to insist that a work of fiction has absolutely nothing to do, at any level, with politics and economics, would be genuinely surprising. Hence Dr Clark's introductory assertion that to begin a literary study with "a discussion of contextual factors" will seem "heterodox" seems scarcely necessary. And surely it is equally impossible now to argue that "the dominant critical tendency" believes that "the value of a literary text consists in its a-historical literariness". On the contrary, the new dominant critical orthodoxy is entirely on Dr Clark's side. Hence the proper argument his book provokes is not over the validity of the attempt to link the literary and political cultures of early 19th-century America, but is rather over the precise nature of the linking it seeks to identify.

As I understand it, Dr Clark's basic premise is that American culture in the first half of the 19th century was centrally concerned to conceal or evade the truth that the United States of America had been created through an act of genocide. The civilization and society of the Red Indians had been wiped out, their lands expropriated to further the material self-interest of white America. It is in these terms that the book's title is to be understood. "History" is what "really" happened (genocide and expropriation); "ideology" (white settlers equal "civilization", Indians "savagery") is a bowdlerized version of this history, making it acceptable to the power structure of American society; "myth" (America is an innocent, Edenic garden) is a negative distortion of history, a depoliticized ideology. The relevance of this structure of ideas to the particulars of literary texts is mediated through discussion of the conditions of American literary production, and American aesthetic values.

The arguments advanced in all these areas are conducted with great skill and conviction but they are not wholly convincing. Was early 19th-century America as preoccupied with the fate of the Red Indians as the book's analysis assumes? The weight of actual evidence points to a much greater preoccupation with the negro slave. Again, Dr Clark is probably right in assuming that (Scottish) common-sense philosophy dominated aesthetic theory in the period, but little in the way of explanation is provided, nor are the links between common-sense philosophy and American politics and economics sufficiently recognized. On pages 16–17, a passage from Scott's Postscript to *Waverley*, on historical change in Scotland, is seriously misread.

This study is at its best in relation to Cooper, upon whom the main thrust of the argument presses in a particularly telling way. Perhaps this explains why the Cooper chapter is longer than those on Hawthorne and Melville put together. The Cooper chapter at least provides a reading that future scholars will have to come to terms with. Even here, however, the book, vigorously – and ideologically – argued as it is, will occasion rather than conclude debate.

Andrew Hook

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BOOKS

AMERICAN STUDIES

Grandiose dilemma

Hart Crane: complete poems
edited by Brom Weber
Bloodaxe, £4.95
ISBN 0 906427 65 7

For all the brevity of his life and the consequent relative slenderness of his oeuvre, Hart Crane is one of the great American poets, a major figure, in lyric and epic modes, of a remarkable generation. So it is a pleasure to have his poems readily available again in Britain in a cheap but handsomely produced edition, with its cover photograph of Crane in front of his inspirational Brooklyn Bridge, and with its frontispiece reproduction of Siqueiros's forceful and sombre portrait of the poet in Mexico the year before his death in 1932 at the age of 32.

There have been two previous volumes published under the title "Complete Poems": the 1958 edition, a reissue of the 1933 *Collected Poems*, with an introduction by Waldo Frank; and Brom Weber's 1966 edition of the *Complete Poems and Selected Letters and Prose*. The letters and prose are excluded from the new volume, but Frank's foreword and most of Weber's introduction are retained, as is Weber's wholly appropriate dedication "to Waldo Frank, constant friend of Hart Crane." Crane severely tested but assuredly deserved constancy of friendship, and in Frank he found a devoted, attentive, and stable intellectual and personal comrade.

This *Complete Poems* is in fact more complete than its predecessors, containing as it does 22 poems, drafts, and fragments, which either had been published before only in limited pamphlet form and in magazines or, having been included by Frank, had been omitted by Weber in 1966. Among the five poems reinstated are "A Traveler Born", a memento of his stormy trip to France in 1929, "The Return", with its ominous foreshadowing of his own last leap into the waters of the Gulf of Mexico, and "Enrich My Resignation".

Of the other additions, the poems included in the section "Seven Lyrics" are juvenilia, written between the ages of 16 and 18. Three are early drafts of poems later published in magazines under different titles ("Carrier Letter", "Legende", "Interior"), though in each case discarded by Crane when he came to select poems for his first volume, *White Buildings*. Quite accomplished in their delicacy of feelings, "promising" indeed, these slight pieces, in their diction and measure, confirm that the original influences upon him were the English poets of the 1890s, Ernest Dowson and Lionel Johnson in particular, modulating into the tones and colours (jade-green, for instance) of minor or peripheral Imagist poets, like Amy Lowell and John Gould Fletcher. Just one phrase, the "andante of lost hopes" points forward to his "logic of metaphor" and to such a striking synaesthetic effect as the "adagois of islands" that sway hypnotically in the luscious second of his "Voyages" poems. This quintet of minor works of Crane's culminates beautifully in "My Grandmother's Love Letters".

"Ten Unpublished Poems" were, as the notes tell us, "hastily written by Crane on scraps of notebook paper, an envelope, and the backs of letters", between 1920 and the month before his death. They are fragments, chips even, or momentary gestures towards poems that eventually did get written (the second perhaps towards "Sunday Morning Apples", the fourth towards "The Wine Menagerie", where Holofernes also serves). The seventh piece (which, incidentally, though deemed to have been written "c 1928–1930," must have been set down after March 20, 1929, the date of Marshall Foch's death, to which it refers) contains one line of pathetic, haunting comment upon his parched poetic gift and surely upon his inability to proceed with the whole project of his imagination: "My vision is a grandiose dilemma". Thus, day after day at that time, with no writing worth preserving, must it have appeared. The final fragment, penned within the last month of his life, at the end of his Mexican sojourn, has the world-weary, time-tired ring of several poems from that period, familiar from earlier editions. The contemporary world (especially the United States), the material and superficies of "the news", repels him. His heart is with the Indians, historically defeated though they be, with

These Indians, who scan more news
On the hind end of their flocks each day
Than all the tourists bring their way.

With Weber's scholarly notes reprinted, and with Kenneth Lohf's description of the miscellaneous pieces (the "Seven Lyrics" and "Ten Unpublished Poems") Hart Crane's *Complete Poems* is all that specialist student and general reader alike can require.

R. W. Butterfield

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Hart Crane in 1924 with the Brooklyn Bridge behind him

Behind a bushel

Mark Twain: a sumptuous variety
edited by Robert Giddings
Vision, £16.95
ISBN 0 854780068

The ten essays that form this book produce between them a total of 340 footnotes; or, since the notes come at the end of each piece, an average of one page of notes for just under ten pages of text. Indeed, in two essays, 19 pages of text each require four pages of notes. Since most of these are finding references, one may read my gratuitous statistics in at least two ways. The preponderance of citations of earlier critics of Mark Twain (usually for refutation or qualification) suggests how difficult it has become not to be obtusely derivative in writing about his work. The other references, too heterogeneous to be categorized, make the more encouraging point that Mark Twain's writings lead the informed reader, by association, into an exciting range of works, historical or topical, on America and American society.

In his opening sentence the editor describes Mark Twain as "a resounding genius whose brilliant light has been hidden behind the bushel of his own reputation". "Myth", perhaps, rather than reputation; except among the specialists, Mark Twain's reputation as a writer is still based less securely than the myth of Mark Twain the funny man is entrenched in the popular imagination. A book in a "critical studies series" demands to be judged by what it accomplishes to rectify this. The emphasis is on variety, and an essay on "Mark Twain as Playwright" seems likely to break relatively unfamiliar ground, drawing as it does on much unpublished material. Unfortunately it cannot evade the conclusion that he failed as a playwright because he "did not know or refused to accept that a novel narrates while a play enacts", "persisted in imitating the artificial and contrived style of many of the playwrights of his day", and could not "create a living image of the human condition".

Eric Mottram, senior and best-known of the contributors, makes a spirited case for *The Gilded Age* and a number of other underrated pieces as evidence of Mark Twain's criticism of America, but ultimately returns to the "beautiful affirmations" of *Huckleberry Finn*. A. Robert Lee devotes an entire essay to that work, referring only parenthetically to its "flaws which would have sunk a lesser book", stressing its centrality to a main current of American literature and its "overall moral design". John Whitley, writing on "Mark Twain's Boys", dwells usefully on Tom Canty in *The Prince and the Pauper* as a link between Tom Sawyer and Huck but bases most of his argument on these two, as does Lyall Powers on "Mark Twain and the Future of Picaresque". ("Future" is an odd usage here since we are urged to "see retrospectively" the light that is thrown on a series of novels "following *Lazarillo de Tormes*"; Mark Twain's views on Fielding are not, however, discussed). Powers and others invoke also *A Connecticut Yankee*; *The Mysterious Stranger* continues to tantalize several imaginations.

The widest-ranging piece is William Kaufman's "The Comedic Stance: Sam Clemens His Masquerade" which relates Mark Twain to, and differentiates him from, the tradition of south-western humour and which also glimpses the relationship between Mark Twain's oral delivery on the lecture platform and his written narrative style, but even Kaufman concentrates largely on the novels. Yet it was as a lecturer and as the author of light-hearted travel-books that Mark Twain made a special impact on his contemporaries, and the reasons for that deserve fuller exploration as clues to the real nature of his "resounding genius" as a writer. The paucity of references to, let alone sustained discussions of, *The Innocents Abroad*, *A Tramp Abroad* and especially *Roughing It* are a regrettable feature of a book that seeks to establish his "sumptuous variety" but are sadly symptomatic of the fiction-fixation of present-day criticism.

Dennis Welland

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BOOKS

AMERICAN STUDIES

Going solo

America: a narrative history
by George Brown Tindall
Norton. £16.95
ISBN 0 393 95435 8
The Longman History of the United States of America
by Hugh Brogan
Longman. £19.95
ISBN 0 582 35385 8

Each of these authors is to be saluted for his courage, his patience, even his foolhardiness. For each surveys the history of the United States, including its colonial origins, in a single volume. Tindall in 1,380 pages, Brogan in 700 slightly larger pages.

Such one-man surveys have, especially in the US, recently gone out of fashion. For decades American students have been raised on a basic text, and Allan Nevins admitted that his widely adopted texts made him a millionaire. Recently, however, historical surveys have become multi-volume projects, usually the work of many hands, teams usually including a southerner, a westerner, and a yankee to be sure of balance, each writing on his special interest: or they take the form of one-man's additions to a basic and familiarly established text, as with William Leuchtenberg's amendments and additions to successive editions of "Morison and Commager". This had seemed the only way to take account of the vast quantity of specialized research now available to, and swamping, the student. To do it all solo is in itself an achievement, and usually a long time in the making – Hugh Brogan confesses that his has taken 15 years.

There are some obvious differences between these two books. Tindall manages to supply very many (but very small-scale) maps, and a considerable number of apt (sometimes rather blurred) illustrations. Each of his 34 chapters has a two-page appendix on further reading, thus providing in all a considerable and well-annotated bibliography that is at the same time vigorously written. A study-guide with which to use the text is available, offering exercises, documents and true-false, multiple-choice and essay questions on the text, in familiar American style. Brogan offers only a six-page book list at the end of his volume, on the grounds that "a full-scale bibliography would be out of place" in "a history of this nature: it could do nothing that is not better done elsewhere". Not for him the accompanying student manual, which is rare in Britain, and would be scorned. On the other hand, Tindall has not a single footnote, and Brogan many – and some of them – for example on the movement of Plymouth Rock to adapt it to "history", or in his reference to the Angel Moroni and the curious story of the Golden Plates, even have the zest and flavour of his father Dennis Brogan's foot-of-the-page anecdotes (for some British students of the American political system his book is still the best and most vivid introduction to American politics). Each book, it should be added, is highly readable and freshly written, and sustains the reader's interest to the end.

And which, the potential buyer will ask, would you buy, if you could only afford one? My own initial answer would probably be – and it is not merely cowardice – neither. For as each of these authors knows in his heart, the writing of such a survey is a form of self-satisfaction, however gruelling the labour, a way of displaying a total grasp of the span of one country's history (perhaps the only country whose recorded history is, in all its detailed probing, still short enough for one man to grasp, to interpret and re-interpret, and to recount). But at every point one is conscious of the cursory character of all surveys, however competently done.

On the other hand, what is valuable and striking, is the personal flavour that each author brings to his book. Thus, I would recommend a student to Brogan for much. He is a good essayist, with a real skill in communicating the intense, questioning character of Puritanism (whether he owes it to his Clydeside genes or to the Cambridge of his upbringing). He gives himself more space, though on fewer topics, than does Professor Tindall. Brogan enjoys his sources, weaves quotations from them appositely into his story and makes them, and their authors, live. And though etched in a sentence or two, his characterizations are vivid, notably of Governor Winthrop (with his Cromwellian quality), of George III (appearing not as a tyrant but as an opinionated bewildered farmer, rightly puzzled that there should be protest and revolution against obvious commercial prosperity) and not least of Benjamin Franklin, the "hedonistic Puritan" whom, of all Americans, he confesses he would most like to dine with in Heaven. And his vignettes of the westerners are sparkling, of Daniel Boone and Andrew Jackson, of the Mormon chiefs, Joseph Smith, and Brigham Young, and not least of Buffalo Bill, who at the end of a colourful life – like many long lived veterans – was inventing and embroidering his own legends, confusing fact and fantasy, and incapable of knowing which was which.

In places, as on the culture of the American Indians, he allows himself a mini-essay in length and writes with feeling – America's story, he says, is a story of victors (the loyalists also get short shrift); and it is good to see that each author's taste for eloquence leads him to quote the same moving final speech of Chief Joseph of the Nez Perce. Brogan emphasizes the crude and savage base of the tobacco wealth of Virginia's first families, playing down perhaps that the majority of whites as well as blacks had themselves got there under labour contracts in one form or another. But his comparison of Monticello and Versailles is disturbing and apt.

Brogan devotes more than half the book to the story up to the Civil War. He stops altogether with Nixon, except for two pages of postscript – "History since 1976 is still too close". Tindall is bolder and ends with "the Reagan Restoration". By contrast with Brogan, he gives us in essence a richly-stored handbook to American history, factual, accurate, easy to read and with useful appendices on presidential elections, the constitution, the Articles of Confederation and so on. He is a southerner, a graduate of and professor at Chapel Hill, and an authority on the old and the new south. On his chosen ground there are riches in his book; notably on the Civil War, and in his chapter "The Modern Temper", and especially in his evocative pages on the fugitives at Vanderbilt and the group who gathered around John Crowe Ransom.

In their brevities both books reveal their authors' preferences and personalities. And a student could usefully be asked to compare and contrast the treatments of episodes in a fascinating story by two very different authorities.

Esmond Wright

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Personal truths

Tell About the South: the southern rage to explain
by Fred Hobson
Louisiana State University Press. £35.00 and £12.95
ISBN 0 8071 1112 0 and 1131 7

Tell About the South is not yet another book about what makes the southern United States distinctive, though it discusses that vexed question along the way and inclines to the view that certain southern claims to distinctiveness have been exaggerated. It is not an all-encompassing book about Dixie, since it deals with selected white southerners. While acknowledging C. Vann Woodward's judgement that "there is no one more quintessentially southern than the southern Negro", Hobson's deliberate omission is a fair one, not only because black writers on the south can fill a book by themselves but also because he is concerned with two types of writing about this region that are especially associated with whites.

What the author has produced is "a study of southern self-explanation" from about 1850 to 1970, focused on "non-novelists and non-scholars" who may be divided into two schools. Hobson's "school of shame and guilt", which criticized the south, includes George Washington Cable, Howard Odum, Wilbur J. Cash and Lillian Smith. His "school of remembrance", which includes Edmund Ruffin, Thomas Nelson Page, William Alexander Percy and Donald Davidson, was concerned to refute the notion of the South as a savage and backward society, presenting it instead as the defender of traditional Christian civilization against the demoralizing forces of rationalism, science and industrialization. In addition, *Tell About the South* makes an interesting contribution to the growing body of writing on American autobiography.

For many of the individuals treated here, "telling about the South" was a compulsion, which gave rise to confessional works in which the author came to self-understanding, and offered the reader "a personal truth, an imaginative truth, charged with the power and the integrity of the individual vision". These personal statements sometimes resulted in such semi or actually autobiographical works as Walter Hines Page's *The Southerner* and William Alexander Percy's *Lanterns on the Levee*, both of which are usefully considered in relation to that great northern spiritual autobiography, *The Education of Henry Adams*. Even when his writers do not adopt this mode of explaining their South, Hobson shows that a number of them "cannot easily be separated from their biographies", and his book as a whole is an appealing mixture of textual analysis, cultural history and biography. In the process, some general observations emerge.

Hobson's two schools of writing were united by their self-consciousness and belief in southern distinctiveness; and both gradually with the passage of time. Thus the apologists who had not known the old South, the South which aspired to and achieved nationhood, were driven to look backwards instead of forwards, to extol the South as a "spiritual nation", and to describe it in romantic and sentimental terms. Southerners began to write for themselves as much as for the North, while repetition reduced force, so that the literature of "self-exploration, even of confession and shame and guilt", became "somewhat stylized . . . in part a habit, an aesthetic ritual". The southern traditions under review were also affected by key developments in southern history, including the acceleration of the pace of economic change, the growth of the civil rights movement and the rise of the sun belt. As a result of the first two developments, the critics of the South came to outnumber the apologists. As a result of the last development, the South has recently felt less need to apologize for itself. In consequence, Hobson suggests, southerners are unlikely to produce in the near future any more of the books composed out of a feeling of life and death urgency that he has examined in *Tell About the South*. With the decline of southern hatred of the South, the region may, furthermore, be able to keep its critics at home: in the past, the South's censors tended to leave it, and only the apologists to stay.

Hobson's book is rich in insights into the southern mind and the division he imposes on his authors does not turn out to be a straightjacket. What is not always easy to decide, however, is why particular southerners inclined to the school of writing that they did. Two of the best pointers that Hobson offers are the dislike of some apologists for the social sciences and other modernizing influences, and the tension that existed between southerners who came from the deep or mid-South, and those who represented the older coastal South.

Christine Bolt

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Finding mischief

Frost: a literary life reconsidered
by William H. Pritchard
Oxford University Press. £14.95
ISBN 0 19 503462 7

It has become customary, over the past two decades, to think of Robert Frost as a dark, bitter character who wrote bleakly ironic meditations on the unfathomable nature of things. William Pritchard challenges this new orthodoxy: not because he wants to re-establish the earlier view of Frost as a kindly rural philosopher but so as to emphasize what he sees as the poet's artfulness, his elusiveness and sense of mischief, the way he subverts any simple, singular reading either of himself or his texts. "Play's the thing", Frost wrote once. Taking his cue from remarks like this, Pritchard tries to recover that play: the wayward quality of the poet's mind as it revealed itself both in a life that was extravagantly theatrical, shaped by the demands of his imagination, and in an art that was stylish and unpredictable – and as such an illustration of his belief that the essence of any poetry is surprise.

As far as the life is concerned, Pritchard shows just how inventive Frost could be, how often he made himself the raw material of his fictive powers. He constantly reinterpreted his past: Simpler folk might call this lying but, Pritchard suggests, it was a strategy for uncovering further layers of his personality. Frost evidently felt that he could only guess at himself and his motives rather than know them in any absolute sense. As for the present, he was adept at playing roles, something that made him seem at once histrionic and shadowy, as one colourful mask metamorphosed into another. Even Frost's calculated approach to his own career, Pritchard argues, must be seen as a by-product of his imaginativeness: since his aim was to invent the future too, to will or believe it into existence. Every facet of Frost's experience, in effect, was shaped by his conviction that personality – and his, in particular – was a shifting, shadowy thing, to be caught only aslant via artifice.

"I am not undersigning", Frost admitted once, and the same artfulness that Pritchard claims to find in the poet's behaviour is discovered, perhaps more convincingly, in his writing. His work is full of play. Pritchard insists: play so playful that it leaves the audience as the poet himself said it should, "in doubt whether it is deep or shallow". Moving from the intricate rhythms of speech in *North of Boston*, where Frost was intent upon capturing what he called "the abstract vitality of our language", to those pieces in *A Witness Tree* where the poet, old now, managed to make grimly mischievous verse out of personal suffering, Pritchard shows how many of Frost's guiding impulses remained the same. To register those elusive patterns of sound we use to open up an intercourse with the world, to record the wayward nature of people, to remind us of the teasing, risky character of experience and the necessity for guesswork, these compulsions, we are told, stayed with the poet throughout his career. "It's a wonderful world", Frost declared during his last public appearance; then added, in his next breath, "To hell with it". And, Pritchard implies, it is out of the tension generated by these two remarks that Frost's quirky, mercurial poetic games issue.

The trouble is, Pritchard spends too little time examining the impulses that led the poet to declare, "To hell with it". There is insufficient recognition of what was undeniably there: Frost's darker, bleaker, cruellier side. Even when that side is admitted, Pritchard has a disconcerting habit of offering excuses. On one occasion, for instance, Frost awoke his six-year-old daughter Lesley and, pointing a revolver first at his wife and then at himself, demanded that Lesley choose between them because by morning one of them would be dead. To dismiss this incident as Pritchard does, as "a very bad piece of theatricality" (as if only questions of taste were involved), argues a kind of moral myopia; just as to discuss Frost's poems as this book tends to, in terms of their capacity for mischief, implies a certain lack of critical imagination. Of course, Pritchard is right to claim that there has been too much emphasis recently on Frost's gloomier impulses; but, in trying to redress the balance, he goes much too far the other way. As a result, he denies his subject not only his unpleasantness, his moments of selfishness and brutality, but also his tragic stature. Pritchard seems to think there is something reductive about (to use his own phrase) "pinning Frost down to the 'tragic' mat". On the contrary, I would suggest to call him tragic is the best shorthand way of measuring his range. For Frost is a tragic writer, not because he concerns himself with dark matters (many decidedly non-tragic writers do that), but because in contemplating such matters he can achieve that tragic joy – those mixed feelings of pity, terror, and the gaiety that springs out of sudden knowledge – that only the greatest poets have won from the struggle with themselves.

Richard Gray

Dr Gray is reader in literature at the University of Essex.

BOOKS

AMERICAN STUDIES

The Joyce of sex

The United States of America v. One Book Entitled Ulysses by James Joyce: documents and commentary. A 50-year retrospective.
edited by Michael Moscato and Leslie LeBlanc
University Publications of America. $27.50
ISBN 0 89093 590 4

James Joyce

In the same week in which the Prohibition Laws were repealed, Judge John M. Woolsey delivered his famous verdict that Joyce's *Ulysses* was not an obscene book. The American public were to be permitted to imbibe freely of the contents of bottles and forthright books. Woolsey found of *Ulysses* that "in spite of its unusual frankness, I do not detect anywhere the leer of the sensualist", and revealed his somewhat roseate view of Irish life – "in respect of the recurrent emergence of the theme of sex in the minds of [Joyce's] characters, it must always be remembered that his locale was Celtic and his season Spring". He concluded with Johnsonian elegance: "My considered opinion, after long reflection, is that whilst in many places the effect of *Ulysses* on the reader undoubtedly is somewhat emetic, nowhere does it tend to be an aphrodisiac."

Woolsey's verdict of December 6, 1933 advanced three important guidelines for obscenity law. A literary work, he declared, ought to be judged 1) as a whole rather than from isolated passages – individual episodes of *Ulysses*, especially "Nausicaa", had been found judicially obscene in the 1921 prosecution of the *Little Review* serialization 2) for its effect on the average man rather than on the most susceptible portions of the population, and 3) according to the contemporary standards of the community. In the tradition-bound legal world, the decision did represent, if not a revolution, at least a substantial development.

The heroes of this lengthy book – an exhaustive compilation of all the documents and comments relevant to the case – apart from Woolsey, are Bennett Cerf of Random House who decided to publish *Ulysses*, and in particular Morris L. Ernst, America's foremost lawyer in obscenity cases, and his associate Alex under Lindey, who were retained by Cerf. Their preparation for the legal battle was masterly. For reasons of economy, rather than set up the book in America and then tilt with the government, they decided to import a copy (on May 8, 1932) and have it seized at the Customs – and placed their own agent at the steamer to make sure it was seized. The copy itself was rather special, since they got Paul Léon to paste inside its blue paper cover critical essays and reviews by the leading authors and critics of both England and France. Only by having these reviews pasted inside the copy were they able to quote from them when the case came to trial.

Ernst imported a second copy in May 1933, to test the judicial waters again, then managed to get the Customs to relinquish it on the grounds that the book was a classic – a point he was to make much of in court. Tributes from eminent men, including Dos Passos, F. Scott Fitzgerald and Theodore Dreiser were assembled, as were requests from librarians all over the US to be allowed to stock the book. *Ulysses* could then be seen to be championed not just by ultra-radical literary cliques located in large metropolitan centres. The next stage was to get the book tried by a judge, rather than by a jury – an obviously shrewd move in the notoriously subjective area of taste. And finally, they succeeded in bringing the case before Woolsey, a liberal and cultivated man, rather than before a semi-literate conservative.

Ernst and Lindey presented a powerful brief before Woolsey, and Ernst showed his ability to think on his feet. To highlight important aspects of Joyce's technique, he said "while pleading this case before you, I've also been thinking about that ring round your tie, how your gown does not fit too well on your shoulders, and the picture of George Washington back of your bench." The judge smiled. "I must confess he replied, "that while listening to you I've been thinking about the Heppelwhite chair behind you". "Judge", said Ernst, "that's the book."

The story wasn't over. In 1934, US Attorney Martin Conboy appealed against Woolsey's decision, and Ernst and Lindey fought the case again in front of the Appeals Court of Judges Manton, Learned Hand (a name that must have given Joyce great pleasure) and Augustus Hand. The book got through, two to one on a show of Hands. It was published in England in 1936. Naturally, Joyce's own countrymen were the last to lift the ban on *Ulysses*.

This book is particularly interesting in the light it throws on American legal procedures – Ernst comes across as something of a wily Ulysses himself – and on the moral tenor of the time. Inevitably in a book which prints all documents unabridged there is a certain amount of repetition and redundancy; but as Richard Ellmann remarks in his introduction, "to read the long record of the *Ulysses* case in the United States is to recognize afresh how defiant Joyce's book was."

George Watson

George Watson is senior lecturer in English at the University of Aberdeen.

Cultural debate

American Culture and Society since the 1930s
by Christopher Brookeman
Macmillan. £15.00 and £5.95
ISBN 0 333 29413 0 and 29414 9

American Film and Society since 1945
by Leonard Quart and Albert Auster
Macmillan. £13.00 and £4.95
ISBN 0 333 30021 1 and 30023 8

In his *American Culture and Society Since the 1930s* Christopher Brookeman traces the argument about the nature of American culture in the postwar period, his method being to "place selected developments in literary criticism, cultural theory and artistic practice within an historical context". His materials therefore are the cultural ideas and movements that emerged during and after the Second World War – new criticism, new journalism, the Frankfurt School, and the New York avant-garde. As this list indicates, considerable attention is given to mass culture (with its variants "midcult" and kitsch) as well as to the several versions of its social function in a capitalist state. Brookeman suggests that the debates on this subject "seemed to focus many of the anxieties of postwar society"; indeed, one of the unstated conclusions to be drawn here is that professionals from different disciplines (poetry, literary criticism, sociology, psychology, journalism) enlivened the discussion of mass culture to essential and unavoidable.

Brookeman's tone is objective, the voice of the presenter, expounding, summarizing, observing changes of position. Culture critics, such as John Crowe Ransom and T. S. Eliot, His ventures into film, photography, painting and literature are completed with the same assurance. The personal note lies in the selection of individual figures who are awarded separate chapters: Norman Mailer, as compulsive recorder of mass society; Tom Wolfe, as investigator of exotic subcultures; and Jackson Pollock, as eclectic artist and controversial model of American modernism.

Mailer, Wolfe and similar writers represent developments or reversals of the attitudes of their predecessors. For some time, in the immediate postwar period, cultural analysis was bleakly pessimistic. From both left and right, the production and consumption of mass culture was deplored for catering to the lowest common denominator of appreciation. The prevailing view was that art was predigested, that stereotypes were created and stock responses encouraged.

The onslaught upon mass culture did contain important qualifications, as Mr Brookeman clearly shows. It was from lower-middle-class society and culture – which he saw overwhelming aristocratic and working-class culture – that T. S. Eliot recolled. Similarly, Dwight Macdonald and Robert Warshow reserved their most corrosive comments for middlebrow culture or "midcult" (Thornton Wilder's *Our Town*, *Life* magazine) which strongly resembled a sentimental mass culture, but which had pretensions to respectability and universal significance.

In the 1960s and 1970s, a marked change takes place. Marshall McLuhan's *Understanding Media* (1964) celebrates the global village of a mass electronic culture and the new collective consciousness it creates; Tom Wolfe revealed that the economy of abundance was supporting not a monolithic mass culture but a wide range of energetic subcultures; pop art raised questions about the avant-garde, technological society and popular culture. The barriers between areas of cultural practice were tumbling. Mass culture still had its detractors, but its complexity, its vitality and its ability to liberate the senses were being persuasively argued. And as the recognition of "a continuum in which comics, cubism and relativity theory occupied the same aesthetic space" became widespread, so the post-modernist world of art and culture was made visible.

Brookeman's coverage is not completely comprehensive. He misses Christopher Lasch's *The Culture of Narcissism* (1979) which belongs in that tradition of diversified inquiry examined in the chapter "The Debate on Mass Culture". Also, an account of the formalistic and dogmatic Yale "Derrideans" would have brought up to date the history of an idealistic American literary criticism. The quasi-Marxist discourses of Edward Said and Frederic Jameson – and before them Philip Rahv – belong to another critical tradition for which written texts are "the product of history, ideology and society". It comes as a shock to discover F. O. Matthiessen, the socialist author of *American Renaissance* (1941) placed, not with Rahv, but with Northrop Frye, the authoritarian system-maker.

American Film and Society Since 1945 is a slighter book, more conventional in chronology, in which Professors Quart and Auster remind their readers of the view that "films have the ability to evoke the authentic tone of a society and a particular era". Consequently, each chapter is geared to a postwar decade, begins with an historical outline and proceeds to analyse those "public classics" which demonstrate a significant relation to the contemporaneous society. The effect at times is of film reviews being stitched together, but the text is a triumph of compression and clarity, the representative films (*The Best Years of Our Lives* for the 1940s, *Bonnie and Clyde* for the 1970s, and so on) are intelligently selected, and the commentary displays not only humour, a command of detail and general cultural awareness but also a marked social and political sophistication. However, interviews are used too sparingly (Trevor Griffiths's description of the fate of his screenplay for *Reds* ought to have been consulted) and the reader looks in vain for references to Robert Aldrich whose films, particularly in the 1950s, subverted the American dream, exposing, by means of a harsh, formalistic style, a world of latent violence, hysteria and power relationships.

Ralph Willett

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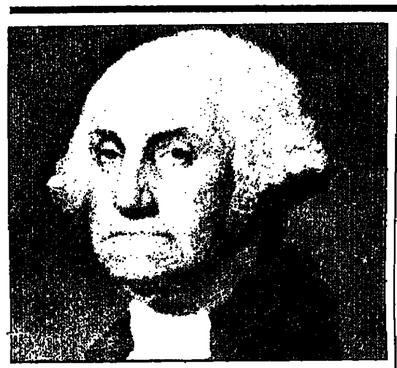

A mouthful for a politician

As John Woodforde shows in his often entertaining, occasionally excruciating *The Strange Story of False Teeth* (RKP, £3.95) dentures have played an important – sometimes prominent, sometimes unsuspected – part in western civilization.

The George Washington who appears on American paper money was a far cry from the chiselled portraits of the younger years; the chubby cheeks and dropped lip were the handiwork, not of nature, but of the acclaimed Mr Greenwood.

NOTICE BOARD

Chairs

The University of Glasgow has announced the appointment of Dr David Crompton to the John Graham Kerr chair of zoology. Dr Crompton is presently lecturer in parasitology in the University of Cambridge and additionally adjunct professor in the division of nutritional sciences, Cornell University, New York.

Three professorial appointments at Liverpool: Dr Noel Bowden, senior lecturer in the department of sociology, has been appointed to the William Rathbone chair of continuing education; Dr John Cawley, coming to the northwest from University College, London, takes over the chair of haematology from Professor A. J. Bellingham. Lastly, Dr Bill Eccleston, a senior lecturer at Liverpool, becomes the new professor of electrical engineering.

Heriot-Watt University has announced two professorial appointments. James L. Murray is to occupy the new chair of computer-aided engineering; he is currently head of the department of mechanical engineering. Dr John Swaffield, reader in mechanical engineering at Brunel University, takes over the new chair of building services engineering.

Promotions

BELFAST, QUEEN'S
Personal professorship: Dr Thomas Patterson (numerical analysis).

CARDIFF, UNIVERSITY COLLEGE
Senior lectureships: Mr C. M. Boyd (music); Mr T. T. Lewis (engineering and energy studies).

Events

A half day meeting organized by the Centre for Educational Development and Training, Manchester Polytechnic on June 13 at Shepherds House, Elizabeth Gaskell St, Hathersage Road, Manchester M13 is entitled "The Supervision of Research Students". Details from B. Hollinshead, 061-225 9054.

The Northern Organists seminar, organized by the University of Leeds department of adult and continuing education, is to be held from June 27 to 30.

The course includes a recital on historic Schultze organ at St Bartholemew's Church, Armley. Details from T.D. Bilham, (0532)435036.

Honorary degrees

The City University has announced the award of the following:
DLitt: Henry L. B. Wrong, director of the Barbican Centre.
DSc: Peter A. Graham, senior deputy chairman of the Standard Chartered Bank Ltd.
DCL: John F. Phillips, arbitrator and chairman of Provident Association for Medical Care.

Imperial College, London, has announced the election of six fellowships: Emeritus professor J. H. Argyris, emeritus professor of Imperial College and the University of Stuttgart; Mr John Egan, chairman and chief executive, Jaguar Cars; the Rt Hon Lord Curr of Hadley, chairman, Prudential Corporation and Prudential Assurance Company, governor, Imperial College; Mr H. M. Neal, chairman, City and Guilds of London Institute; Professor Randolph Quirk, vice chancellor, University of London; Emeritus professor J. Sutton, senior research fellow, Centre for Environmental Technology at Imperial College.

Appointments

Professor Owen Chadwick (above), president of the British Academy and regius professor of modern history in the University of Cambridge, is to be the next chancellor of the University of East Anglia, the third person to hold the post in the university's history.

Dr H. P. Wynn has been appointed to the chair of statistics in the department of mathematics at City University.

At the same time, City has announced three visiting professorships: Mr C. A. Baker (arts policy and management); Mr D. Body (systems science); Mr J. C. Gower (statistics).

Professor Alfred L. Brown, professor of medieval history, has been appointed arts-based vice principal of the University of Glasgow for a term of four years.

The electors to the presidency of Corpus Christi College, Oxford have announced the appointment of Mr Keith Thomas, reader in modern history and fellow of St John's College.

Mr James Gulliver, chairman and chief executive of Argyll Group plc, has been appointed visiting professor of business strategy and marketing at the University of Glasgow department of management studies.

Publications

Margrit Eichler's and Jesnee Lapointe's bilingual *On the Treatment of the Sexes in Research* is published by the Social Sciences and Humanities Research Council of Canada and is available from 255 rue Albert, CP 1610, Ottowa K1P 6G4.

Grants

SOUTHAMPTON
Dr D. A. Morris, £30,270 from SERC (mechanism of auxin transport in intact plants); Mrs B. Lloyd, £46,139 from Wessex Medical School Trust (investigation of mafoprim-associated agranulocytosis); Dr S. T. Holgate, £68,767 from Wessex Medical Trust (pharmacokinetics on inhaled sodium cromoglycate in man); Professor W. A. Gambling and Dr D. Payne, £436,174 from SERC (optical fibre communications); Dr A. Brunschweiler, £388,336 from SERC (design and test centre for microelectronic circuits); Dr F. K. Stevenson, £30,000 from Tenovus (investigations of human B lymphocytic tumours and lymphoid neoplasms); Professor R. W. Nesbitt, £13,875 from the Commission of European Communities (chronite project); Dr J. K. Hammond, £9,494 from MoD (adaptive noise cancellation techniques for broadband and tonal data); Mr C. G. Rice, £83,250 from MoD (tonal corrections); Dr R. Pinnington, £38,522 from MoD (vibration transfer Field); Professor G. A. Chadwick, £14,805 from MoD (aluminium alloy compositions suited to squeeze casting); Dr F. W. Fortescue, £14,000 from MoD (remote optical sensor system for bomb oscillation simulator rig); Mr S. J. Karrun, £12,800 from Southampton and South West Hants Health Authority (colo-rectal sepsis); Dr D. C. Hunna and Dr A. I. Ferguson, £124,900 from SERC (nonlinear optical processes in optical fibre devices); Dr K. Ross and Dr M. Wilson, £34,535 from SERC (use of ejected electron spectroscopy to study inner shell levels of neutral atoms and atomic ions); Dr D. R. Farrier, £31,370 from MoD (application of maximum entropy methods to underwater detection); Dr D. J. Parsons, £30,700 from MoD (sonochemical control in ring forming and linking reactions); Professor G. A. Chadwick, £10,918 from Department of Trade and Industry (squeeze casting of non-ferrous and ferrous alloys); Dr B. J. Hopkins, £17,806 from UKAEA (secondary electron emission measurements on carbon); Dr J. Fisher, £14,668 from MoD (fibre element methods applied to ocean acoustics); Dr D. C. Hunna, £42,552 from MoD (phase conjugation using stimulated brillouin scattering); Dr D. J. Mead, £10,113 from MoD (aircraft fuselage design to minimize propeller induced transmitted noise); Dr J. Fisher, £3,500 from British Medical Association (trace element intake in the elderly); Dr J. E. Heckels, £10,286 from World Health Organization (surface proteins of meningococci); Dr M. McDonald £16,735 from TRRL (development of microcomputer based accident analysis system); Dr S. A. L. Clegg, £179,984 from MoD (broadband propeller noise investigation); Dr F. A. Bisby, £2,980 from US department of agriculture (scientific names of vicia worldwide); Dr P. K. Evans, £13,446 from British-American Tobacco Co Ltd (production and supply of plant cell suspension cultures); Professor W. A. Gambling and Dr D. N. Payne, £708,159 from SERC (advanced fibre measurements, optical fibre sensors advanced fibre wave guide devices and optically addressable switches); Dr N. A. Halliwell, £15,520 from Ford Motor Co Ltd (double pulsed laser metrology in fluids and acoustics); Mr M. Dyne, £23,960 from SERC (transcription of software); Professor R. G. White, £22,813 from MoD (post buckle dynamic behaviour of CRFP structures); Dr C. Antony, £4,610 from British Technology Group (energy controls in methylotrophs); Dr J. S. Ogden and Dr W. Levason, £22,159 from SERC (vibrational and electronic spectra of matrix isolated transition metal halides and oxohalides); Mr C. G. Rice, £27,651 from Knowles Electronics Co (noise problems in hearing); Dr A. Martin, £31,326 from MRC (infra-sonic measurements of human intra-cochlear hydrodynamics, variations with age, sex and vestibular pathology); Dr M. J. Griffin, £10,100 from Ford Motor Co Ltd (design and manufacture of a prototype ship stability meter); Professor P. J. Watt, £6,328 from WHO (common respiratory illnesses of childhood); Mr M. R. Cooper, £80,345 from SERC (trench reinstatements in highway maintenance); Dr P. Taylor, £4,445 from MoD (helicopter twin tail rotor characteristics).

GLASGOW COLLEGE of TECHNOLOGY
Dr J. Craft and Dr A. Burnett, £26,017 from Leukaemia Research Fund (susceptibility of humans and rodents to chemical leukaemogenesis); Local Enterprise Development Unit, £20,000 from Scottish Enterprise Council and Strathclyde Regional Council (small business training); Mr D. Donald and Mr A. Hutton, £6,170 from Scottish Sports Council (administration, sponsorship and media coverage of sport in Scotland); the college, which will be designated a Scottish Central Institution in 1985, has established a Trade Advisory Service; sponsorship has so far been received from Economic and Industrial Development Committee, Strathclyde Regional Authority, £20,000; Moscow Narodny Bank, £5,000; Clydesdale Bank, £5,000; Bank of Scotland, £3,000; University of Edinburgh, £4,000.

CITY
Mr M. A. Cooper and Mr N. E. Lindsay, £61,059 from Transport and Road Research Laboratory (photogrammetric techniques for monitoring movements of unstable hill slopes in Nepal); Mr W. S. Wilkinson, Professor A. C. Davies and Professor A. C. C. Tseung, £142,798 from SERC/Home Office (non-linearity of materials and structures and effection spectrum conservation in radio communications); Dr B. Mintz, £15,000 from Santos Ltd (structure/property relationships in flanges for low temperature service); Dr T. J. Ellis, Dr R. A. Comley, visiting Professor C. A. Renton, £18,000 worth of equipment from Hakuto Ltd (research in Centre for Information Engineering and Measurement and Instrumentation Research Centre); Dr F. Abdullnhaani, Professor L. Finkelstein, £110,000 from SERC (modelling and computer aided design of instrument transducers and sensors); Professor R. S. Davidson, £41,269 from SERC (some new resins for UV and EB lithography); Dr S. E. Robertson, £56,850 from British Library (front-end project); Dr J. L. Barbur, £57,834 from Wellcome Trust (function of pupil response in human vision); Dr J. H. Atkinson, £16,300 from TRRL (failure of clay soils at small effective stresses); Dr. J. H. Atkinson and Dr R. N. Taylor, £49,270 from SERC (field data from British Library Euston excavation).

Open University viewing

Saturday May 18

BBC1
6.45 Curriculum Evaluation and Assessment. Sorting them out. (E364: prog 2).
7.10 Oceanography. Hydrothermal plumes (S334: prog 7)
7.35 Evolution. The fish on the bones. (S363: prog 7)
8.00 Philosophical Problems. Have a heart, one your head, part 1. (A313: prog 10)

BBC2
6.25 Engineering Product Design. Evolution of the hammer. (T202: prog 4).
9.50 World Politics. The Rise and fall of Britain's Sanctions. prog 1 (D233: prog 8)
7.15 Third World Studies. The Plough and the Hoe: prog the green revolution. (U301: prog 1).
7.40 Science, foundation course. Elements Organic chemistry (S100: prog 8).
8.05 Basic Science for Technology. Periodic Tables. (T171: prog 2)
8.30 Arts foundation course. Jumpers, (A101: prog 14).
8.55 Mathematics and Design. The National Grid. (T1361: prog 7).
9.20 Discovering Physics. Lightning does strike twice! (S271: prog 8)
9.45 Society, Education and the State. Graduates for growth. (E353: prog 4).
10.10 An Introduction to Psychology. Your full attention please. (D262: prog 4)
10.35 Contemporary Issues in Education. William Tyndale. (E236: prog 10)
11.00 Geology. Inside volcanoes. (S236: prog 7)
11.25 Organic Chemistry. SN 1 or SN 2? (S341: prog 5)
11.50 The Enlightenment. Dinner at Baron d' Holbach's. (A354: prog 8)
12.15 Caring for Older People. Hospital. (H851: prog 5)
12.40 Language in Use. Language acquisition. (E203: prog 5)
13.05 The Changing Countryside. Views of a valley. (T071: prog 4)
13.30 Quantum Theory and Atomic Structure. Solutions of Schrodinger's wave equation (S341: prog 6)
13.55 Man's Religious Quest. The Promise among Ancient Jews. (A028: prog 1)
14.20 Modern Art and Modernism. Cubism and modernism. (A315: prog 13)
14.45 Shakespeare. Twelfth Night, workshop. (A361: prog 4)
RADIO 3 (VHF)
6.56 Introduction to Calculus. Scaling and approximations. (M5283: prog 4)

Sunday May 19

BBC1
6.45 Technology foundation course. The Oil Game (T101: prog 9)
7.10 Crystal and Mantle Processes Mineralization in Cornwall. (S336: prog 3)
7.35 Control of Technology. Nuclear opposition in the USA. 2 direct action. (T361: prog 4)
8.00 Biochemistry and Molecular Biology. Oxidative phosphorylation. 1. (S322: prog 8)
8.25 The Nature of Chemistry. Transition metals: prog strong field ligands. (S304: prog 15)

BBC2
6.25 Modern Art and Modernism. Futurism: mutuality and style. (A315: prog 14).
6.50 Urban Change and Conflict. City Centre development. (D202: prog 4)
7.40 Socialism. Making it Britain. Reaching the community. (D236: prog 9).
8.05 The Changing Experience of Women. Public place and private space. (U221: prog 4)
8.30* Photochemistry. Sun: city and smog. (S341: prog 5)
8.55 Mathematical Models and Methods. Dots and crosses – products of vectors. (M373: prog 15)
9.20 Social Sciences foundation course. A fairy tale. Democracy. (D102: prog 13)
9.45 Maths foundation course. Curve sketching. (M101: prog 12)
10.10 Introduction to Pure Mathematics. Fourier series. (M215: prog 13)
10.35 Probability and Statistics. Testing for telepathy. (M245: prog 7)
11.00 Design Process and Products. Learning from experience. (T203: prog 4).
11.25 Mathematics across the Curriculum What are they up to? (PME233: prog 4)
11.50 Biology. prog Form and function. Patterns in Development prog cell movements. (S301: prog 14)
12.15 Greece. 478-338 BC. Social life – The Oikos. (A263: prog 14)
12.40 Purpose and Planning in the Curriculum. A convert education. (E204: prog 3)
13.05 Italy II. 1861-1980. The Vista Fascista. (A352: prog 5)
13.30 Food Production Systems. Novel proteins. (T223: prog 4)
RADIO 3 (VHF)
6.35 Reading Developments. Science and literature. (P232: prog 4)
RADIO 4 (VHF)
6.45 Man's Religious Quest. Images of the Divine. (A028: prog 11)
7.05 Science foundation course. Nitrogen and the Haber process. (S101: prog 7)
7.35 Technology foundation course. The Oil game: prog guard 2. (T101: prog 9)

Monday May 20

BBC1
6.30* Management – Issues in Post-Statutory Education. All those in favour. (E324: prog 5)
6.55* Contemporary Issues in Education. William Tyndale. (E236: prog 10)

RADIO 4 (VHF)
23.10 Arts foundation course. What the tortoise said to Achilles. (A101: prog 14)
23.40 The Enlightenment. The Geneva Episode. (A264: prog 14)

Tuesday May 21

BBC2
6.20* Geology. Inside volcanoes. (S236: prog 7)
6.55* Social Science foundation course. A dirty tale democracy. (D102: prog 15)
23.30* Discovering Physics. Lightning does strike twice! (S271: prog 8)
23.55* Man's Religious Quest. The Passover among Yemenai Jews. (A028: prog 1)

RADIO 3 (VHF)
6.35 The 19th Century Novel and its Legacy. *Middle Pace and Wuthering Heights*: prog a feminist approach. (A312: prog 7)

RADIO 4 (VHF)
23.20 Open Forum. Information programme for OU students.
23.50* Science foundation course. Nitrogen and the Haber process. (S101: prog 7)

Wednesday May 22

BBC2
6.20* Technology foundation course. The oil game. (T101: prog 9)
6.45* Arts foundation course. Jumpers. (A101: prog 14)
23.30* Third World Studies. The Plough and the Hoe: prog village life in Bihar. (U301: prog 10)
23.55* Biology: prog Form and Function. Patterns in Development: prog cell movements. (S301: prog 14)

RADIO 3 (VHF)
6.35 The Romantic Poets. The overthrow of the mechanistic philosophy. (A362: prog 5)

RADIO 4 (VHF)
23.30 Modern Art and Modernism. Blaue Reiter. (A315: prog 14)
23.50 Mathematics and the School. Dotty heads: prog do primary schools need them? (E323: prog 3)

Thursday May 23

BBC2
6.20* Maths foundation course. Curve sketching. (M101: prog 12)
6.55 Science foundation course: Equilibrium rules. OK? (S101: prog 14)
23.30 Working Children.
23.25* Instrumentation. Position transducers, and velocity. (T281: prog 3)
24.00* The Changing Experience of Women. Public place and private space. (U221: prog 4)

RADIO 3 (VHF)
6.35* Technology foundation course. The Oil game: prog Heads or Tails? (T101: prog 9)

RADIO 4 (VHF)
23.30 An Ageing Population. Senior Power. (P252: prog 7)
23.50 Organic Chemistry. Feedback. (S246: prog 2)

Friday May 24

BBC2
6.30* Basic Science for Technology. Periodic tables.
6.55 Biology. Brain and Behaviour. Moving muscles. (S326b: prog 7)
7.20* Weekend Outlook.

RADIO 3 (VHF)
6.35* Open Forum. Information programme for OU students.

* repeated programme

Announcements

THE ROYAL HISTORICAL SOCIETY AWARDS

ALEXANDER PRIZE

The Alexander Prize is offered annually for an essay upon an historical subject. Candidates may select their own subject, but they must submit their choice to the Literary Director for approval. The essay must be a genuine work of original research, not hitherto published. The successful essay will be published in the Society's *Transactions* and the author will be awarded a silver medal and £100. In recent years the Prize has been won by graduates about to submit their theses and by young university lecturers.

Essays must reach the Society's offices by 1 November 1985.

DAVID BERRY PRIZE

Notice is hereby given that pursuant to the provisions of the David Berry Trust, a Competition will be held in the year 1985 for a Money Prize of £100 to be awarded to the writer of the best essay on some subject dealing with Scottish History within the reigns of James I – IV, to be chosen by the candidates and previously approved by the Council of the Royal Historical Society.

Essays must reach the Society's offices by 31 October 1985.

WHITFIELD PRIZE

The Whitfield Prize (value £600) is offered annually for the best work on English or Welsh history by an author under 40 years of age, published in the United Kingdom. The award is made by Council in the Spring of each year in respect of works published in the preceding calendar year. Two copies (non-returnable) of a book eligible for the competition should be submitted by the author or publisher.

Entries for the year 1985 should be sent to the Executive Secretary to arrive not later than 31 December 1985.

Further details of the above awards may be obtained from the Executive Secretary, Royal Historical Society, University College London, Gower Street, London WC1E 6BT.

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All box no. replies should be sent to THES at the above address

Universities

AUSTRALIA

Applications are invited for the following posts for which applications close on the dates shown. SALARIES (unless otherwise stated) are as follows: Senior Research Fellow $A34,886-$A41,390; Research Fellow $A28,843-$A33,534; Postdoctoral Fellow $A21,411-$A24,625; Senior Lecturer $A35,933-$A41,029; Lecturer $A26,304-$A34,497. Further details and application procedure may be obtained from The Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF quoting reference. Unless applications are invited direct is the University, Equality of opportunity is University policy.

The University of New South Wales, Sydney
LECTURER IN SCHOOL OF ENGLISH
(Ref. 1034)
Applicants should have both a good higher degree in the field of post-medieval English literature and university teaching experience. Preference will be given to an applicant whose field of specialization is 18th Century English Literature.
The appointment is for a fixed term of three years and is available from February 1986.
New South Wales, P O Box 1, Kensington, NSW, Australia 2033 (tel: (02) 697 2280).
Commencing salary according to qualifications and experience.
7 June 1985.

James Cook University of North Queensland
LECTURER/SENIOR LECTURER IN DEPARTMENT OF COMMERCE
The Department offers courses for pass, honours and higher degrees and an MBA programme.
Applicants must have a Higher degree and/or a strong record of research.
The appointee will be required to teach business law to undergraduate level and have some interest in teaching and research in accounting, auditing or commercial law.
28 June 1985.

La Trobe University, Melbourne
LECTURERS IN EDUCATION (INNOVATION CENTRE)
School of Malcolm
(Tenurable)
The appointees will be expected to teach in the Master of Teaching degree, to develop and conduct research in relevant areas, including changes in curriculum and teaching practice in the schools, the preparation of professional and discipline based teachers, and the formation of new ways of linking theory and practice in teacher education, and the distribution of schooling. Ref. 1/85 (Senior Lecturer) and Ref. 2/85 (Lecturer).
Applicants should be able to demonstrate a record of research and teaching appropriate to the position, to show a capacity for innovation in teaching and research in teacher education, to show a capacity for working in a team, and to show a capacity for teaching and research in the area of curriculum studies and/or the theory and practice of teacher education.
Salary: Senior Lecturer $A35,933-$A41,029 per annum; Lecturer $A26,304-$A34,497 per annum.
Superannuation: Employer's contribution is 15.6% of salary. Employee's contribution is 7.5% of salary.
Relocation expenses will be paid.
Further details and application forms may be obtained from the Personnel Officer, La Trobe University, Bundoora, Victoria 3083, Australia.
Closing date: 31st May 1985.

Murdoch University Perth
LECTURER IN ECOLOGY
School of Environmental and Life Sciences
The appointee will be responsible for courses and research in ecology in conjunction with a multidisciplinary team within Environmental Sciences. Applicants should be qualified in plant ecology and have experience in the ecosystem approach to land use management, arid zones, wetlands, coastal and estuarine systems or agricultural or forest systems. (Ref: 0028 – post available from 1/1/1986).
Generous Salary range: $A24,640-$A33,634 per annum (appointment will normally be made at the lower stage of the grade). This is a tenurable appointment and conditions include superannuation, long service leave, outside studies programme, payment of fares to Perth for appointee and dependent family, removal and settling-in allowance and house purchase loan arrangement.
Procedure for applications: There is no prescribed application form but TWO COMPLETE SETS of detailed application, quoting the appropriate reference number, including full personal particulars, details of tertiary qualifications, career history with description of posts held, area of special competence and interest, research completed or currently being undertaken, personal views on teaching, membership of professional institutions or societies and positions of responsibility in these; list of relevant material published by the applicant, three referees whose first preferences are offered and the names and addresses of these preferred referees should be sent to the Personnel Officer, Murdoch University, Murdoch, Western Australia 6150.
Applicants in the United Kingdom, Eire, Europe or Africa, at the time of application should also forward one additional copy to the Secretary General, Association of Commonwealth Universities (Appts), 31 June 1985.

The Australian National University
NORTH AUSTRALIA RESEARCH UNIT POSTDOCTORAL FELLOW, RESEARCH FELLOW OR SENIOR RESEARCH FELLOW
School of Pacific Studies
The position will be available from early 1986 in the North Australia Research Unit located in Darwin. The Unit is developing new research programs, including comparative studies, and seeks applicants with a PhD degree or equivalent qualifications in one of the following disciplines: political science/administration, sociology, geography/cartography; anthropology/prehistory. Other related disciplines will be considered. Appointments on secondment from within Australia will be considered.
Appointment, unless otherwise stated, will be Senior Research Fellow/Research Fellow for up to three years initially with the possibility of extension, after review, to a maximum of five years; Postdoctoral Fellow for one or two years initially with the possibility of extension to a maximum of three years.
Grants are provided towards travel and removal. Assistance towards housing is given to an appointee from outside Canberra. Superannuation benefits will be required to join the Superannuation Scheme for Australian Universities. Maternity leave is available. The University reserves the right not to make an appointment or to make an appointment by invitation at any time. Applicants should quote PA78/4/2 in all correspondence with the Canberra and when submitting applications.
15 June 1985.

The University of Adelaide
LECTURER/SENIOR LECTURER IN THE DEPARTMENT OF LAW
(Tenurable)
(Ref: A1467)
Duties include teaching in undergraduate and postgraduate courses. The appointee will also be expected to participate in research activities.
Applicants should normally hold a postgraduate degree in law and preference may be given to those willing and able to teach commercial law.
The position is tenurable from 24 January 1986.
Holders of full-time tenured or tenurable academic appointments have the opportunity to take leave without pay on a full-time basis for a specific period of up to ten years where this is necessary for the care of children.
It is University policy to encourage women to apply for consideration for appointment to tenurable academic appointments.
The University reserves the right to make no appointment or to make an appointment by invitation.
Salary: $A24,640-$A33,634 per annum.
Superannuation: Employer's contribution is 15.6% of salary. Employee's contribution is 7.5% of salary.
Relocation expenses will be paid.
Further details and application forms may be obtained from the Personnel Officer, The University of Adelaide, Adelaide, South Australia 5000.
Closing date: 31st May 1985.

The University of New England Armidale, New South Wales
SENIOR POSITION – MOLECULAR BIOLOGIST
Position No 468
Research into Modification of Rumen Fermentation
Department of Biochemistry, Microbiology & Nutrition
A Molecular Biologist is required to establish a research group to study manipulation of rumen microbes using recombinant DNA techniques with a view to increasing fermentation of lignified forages.
This new group will join an existing group of nutritional biochemists and microbiologists led by Dr J. Nolan and Professor R. Leng. Dr T. Bauchop recently accepted appointment as Senior Microbiologist with the group.
The appointment is available immediately. It will be for three years initially, when the whole programme will be reviewed by the Australian Meat Research Committee which is funding the project.
The appointee will be expected to extract and supervise postgraduate students as part of his/her duties.
Applicants must have suitable experience, research ability and a publication record appropriate to senior levels of appointment.
Informal enquiries to Professor Leng (ISD 61 07 73-2707).
Appointment will be dependent on experience, qualifications, and ability in one of the research fields. Senior Research Fellow $A34,928; Senior Research Fellow $A33,531, (currently under review). Assistance with travel and removal expenses available.
7 June 1985.

LECTURER IN DEPARTMENT OF HISTORY
Position No 469
Applications are invited from candidates who have a postgraduate degree and teaching and research experience in any aspect of the history of the United States. The successful applicant's duties will include teaching in pass degree courses (internal and external), supervising postgraduate and honours students and carrying out research. Ability to teach in other areas offered by the Department (Medieval, Early Modern and Later Modern European, and Australian History) will be an advantage.
Informal enquiries to Professor S. Ansell (ISD 61 07 72-2060).
SALARY: $A24,640-$A32,634 per annum (currently under review)
The appointment will be to the permanent staff but the University reserves the right to make the appointment probationary where it considers this appropriate.
Other conditions include superannuation, assistance with travel and removal expenses and with buying or building a house in Armidale.
21 June 1985.

LECTURER
Position No 473
Department of Physiology
Applicants are invited from suitably qualified candidates for a lectureship in mammalian physiology. A special interest in the cardiovascular field would be an advantage: endocrinology in relation to electrolyte metabolism and salt secretion, neurophysiology, sensory or cellular physiology.
The appointee's duties will include participation in teaching to internal and external students, supervision of honours students and individual research. It is hoped that the appointee will be able to take up the post not later than mid-January 1986.
Informal enquiries to Mr V. Williams (ISD 61 07 72-2485).
The appointment will be to the permanent staff but the University reserves the right to make the appointment probationary where it considers this appropriate.
Other conditions include superannuation, assistance with travel and removal expenses and with buying or building a house in Armidale.
17 June 1985.
For all posts: Applications including the names and addresses of three referees and stating the position number should be sent to the Personnel Officer, University of New England, Armidale, N.S.W. 2351, Australia, prior to the closing date.
Applicants should forward a copy of this advertisement to their referees and ask them to send their first direct to the Staff Officer, Mr B.O. Turner, marking their envelopes 'Private and Confidential' and quoting the position number, before the above closing date so as to expedite the appointment process.
(70552)

ARTS CENTRE
University of Warwick

Curator of the Art Gallery

Applications are invited from suitably qualified candidates for the new post of Curator of the University's Art Gallery (due to be opened in September 1985). Duties will include the management of the Art Gallery and supervision of the University's Art Collection. The appointment will be on a three-year renewable contract.

Salary at an appropriate point on the Administrative Grade IA scale: £8,600 - £12,150 p.a. (under review).

Further particulars from Registrar, University of Warwick, Coventry CV4 7AL, quoting Ref. No: 40/B/385. Closing date 31st May 1985.

UNIVERSITY OF WARWICK

Southampton THE UNIVERSITY

DEPARTMENT OF COMPUTER STUDIES
Temporary Lectureship in Computing in the Humanities

Applications are invited for the post of LECTURER in Computer Studies with special responsibility for computing in the humanities. The post has been established to strengthen computer-related teaching and research in arts-based disciplines. The person appointed will devise and teach courses for Arts-based undergraduates, and will play a major role in coordinating computer-based research activities in the Arts-based departments. It is expected that he/she will conduct research in some area of computer science relevant to the humanities.

Applicants should hold a degree (and preferably a higher degree) in a relevant area, though in view of the unusual nature of this post we are prepared to be broad-minded about qualifications; practical experience and an enthusiasm for the job will count for much. Experience in the use of package software is desirable, and fluency in a European language will be an advantage.

The post is tenable from 1 September, 1986 for three years.

Salary Scale £7,520 x £470 to £14,625 per annum (under review); initial salary will depend on qualifications and experience.

Further particulars may be obtained from Mr D. W. Powell, Staffing Department, The University, Southampton SO9 5NH to whom applications (7 copies from United Kingdom applicants) should be sent not later than 7 June, 1985 quoting reference number 1519/A.

(70247)

King's College London
Chelsea College
Queen Elizabeth College
University of London
N.W. THAMES REGIONAL HEALTH AUTHORITY
LECTURER IN NURSING RESEARCH

Applications are invited from nurses who are graduates to fill this challenging new post which offers an opportunity to be involved in teaching nursing research appreciation, application and methodology to nurses in the N.W. Thames Region and to Chelsea College students on the B.Sc./R.G.N. course.

This post, funded by the N.W. Thames RHA, although based in Chelsea College, will involve research activities contributing to the development of nursing within the Region and is a unique approach to promoting research-based nursing practice.

The person appointed will join an enthusiastic and progressive teaching team and will liaise with staff throughout the Region. Candidates should have good general experience of nursing, teaching and research.

Salary within the range: £7,520 - £13,635 per annum plus £1,000 (London Allowance). An appointment will be offered for 3 years in the first instance. The post may be discussed informally with Dr Jenifer Wilson-Barnett, Tel: 01-351 2488, Ext. 3770.

Please telephone or write for further particulars to the Personnel Office, Chelsea College, 552 Kings Road, London SW10 0UA. Tel: 01-351 2488, Ext. 3636.

Closing date: 31st May 1985. (60347)

The Queen's University of Belfast
COMPOSER-IN-RESIDENCE

Applications are invited from composers for the post of Composer-in-Residence, financed jointly by the Arts Council of Northern Ireland and the University. The post, which will commence in September 1985, is tenable for one year in the first instance but may be renewed annually for a maximum of three years. The salary is £8,000 per annum and the successful applicant will be expected to take up post in October. Applications for assistance with removal expenses will be considered.

Further particulars (please quote ref. 85/) may be obtained from the Personnel Officer, at the address below. Closing date: 14th June, 1985.

RESEARCH ASSISTANT
Department of Pure and Applied Physics

The person required for this post, tenable for at least two years should preferably have a PhD with background experience in physics, astrophysics of photochemistry and some competence in computing. The work involves mainly the analysis and interpretation of rocket photometer data relating to nightglow emissions from the mesopause region of the upper atmosphere but will also require the appointee to take an active interest in the preparation, calibration and rocket flight of the measuring instruments.

Commencing salary range: £7,521 - £10,722 per annum, initial placing dependent upon age, qualifications and experience.

Applications with Curriculum Vitae and the names and addresses of two referees should be sent to the Personnel Officer, at the address below. Closing date: 7th June, 1985. (Please quote ref. 85/P)

TEMPORARY LECTURESHIPS IN BOTANY AND GENETICS
School of Biological Sciences

Two temporary lectureships are available for the academic year 1985-86. One post in the Department of Botany will include teaching of mycology or plant physiology. The other post in the Department of Genetics will involve teaching microbial genetics at elementary and advanced level.

Salary in the range £7,521 to £8,922 per annum, placing depending on age and experience.

Further particulars may be obtained from the Personnel Officer, The Queen's University of Belfast, Northern Ireland, BT7 1NN. Closing date: 21st June, 1985. (Please quote ref. 85/HEB.).

(70571)

Universities continued

THE UNIVERSITY OF PAPUA NEW GUINEA
Port Moresby

Applications are invited from suitably qualified persons for the following positions:

Professor of Geology-P.071001/85
(Geology Department) Applications are invited to fill this post which falls vacant at the end of 1985. Applicants should have proved ability of high calibre in either Economic Geology/Geochemistry/Igneous Petrology or Palaeontology/Stratigraphy/Sedimentology/Marine Geology, preferably with industrial or survey experience as well as in university environment. The successful applicant must be able to liaise productively with individuals and institutions outside the university, as well as providing leadership in teaching and research within the Department. Preference will be given to applicants with a genuine interest in extending beyond the initial contract period. The appointee will be expected to become administrative Head of Department as soon as possible.

Professor of Community Medicine-P.041001/85
(Department of Community Medicine) Applications are invited for the position of Professor of Community Medicine in the Faculty of Medicine from persons who possess higher qualifications in Community Medicine/Public Health and have teaching and research experience in developing countries. An interest in Epidemiology and the control of Communicable Diseases will be desirable but not essential, and applicants with interest in other disciplines relate to Community Medicine will be considered. The successful applicant will be engaged in co-ordinating and teaching both undergraduate and postgraduate medical studies in Epidemiology, Biostatistics, Behavioural Science, Medical Care and Rural Health Practice, and will also be participating in teaching of allied health workers. The appointee is expected to provide academic leadership in this multi-disciplinary department and to co-ordinate with the Department of Health and other health agencies. There are excellent opportunities for University supported research, and it is also expected that the appointee will be actively involved in the National Staff Development Programme and be eligible for election as Head of Department.

Lecturer/Senior Lecturer in Community Medicine-P.041005/85
(Department of Community Medicine) Applications are invited for the position of Lecturer/Senior Lecturer in Community Medicine in the Medical Faculty from persons who possess higher qualifications in Community Medicine/Public Health and have health services, teaching and research experience in developing countries. The successful applicants will be engaged in teaching both undergraduate and postgraduate medical studies, particularly Biostatistics and Epidemiology, in health research, and in the service activities of the Department of Community Medicine. There are excellent opportunities for University supported research, and current departmental interests include primary health care, acute respiratory infections and other infectious diseases, health behaviour, Health planning, decentralized health administration, and degenerative diseases in Papua New Guinea.

Lecturer/Senior Lecturer in Social Science Education-P.051008/85
(Department of Education) The person appointed will be required to train secondary teachers in social science education in both the pre-service and in-service Bachelor of Education programmes. Duties will include teaching practice supervision. Ability to teach in another area such as curriculum or educational technology would be an asset. Candidates must have qualifications in a Social Science discipline relevant to High School teaching and in Education, and should have higher degree qualifications in Education and/or Social Science. Successful teaching experience at Secondary Level is essential, while teaching experience at Tertiary Level and in a developing country is desirable.

Lecturer/Senior Lecturer in International Relations/Foreign Policy-P.141004/85
(Department of Political and Administrative Studies) The Department has a vacancy in the fields of International Relations/Foreign Policy. Applications are invited from appropriately qualified persons. Candidates should be prepared also to teach in one or more of the following areas: Political Economy, Political Sociology, Comparative Politics. A Ph.D. is the normal qualification for appointment at the Senior Lecturer Level. Applicants should have a good record of undergraduate teaching and research. Experience in a Third World country or countries and interest in Development Studies would be an advantage.

Lecturer/Senior Lecturer in Politics-P.141003/85
(Department of Political and Administrative Studies) The Department has a vacancy in the field of PNG Politics and South Pacific Politics. Applications are invited from appropriately qualified persons. Candidates also should be prepared to teach in one or more of the following areas: International Relations, Political Economy, Political Sociology. A Ph.D. is the normal qualification for appointment at Senior Lecturer Level. Applicants should have a good record of undergraduate teaching and research. Experience in a Third World country or countries and interest in Development Studies would be an advantage.

Lecturer/Senior Lecturer in Human Geography-P.061006/85
(Department of Geography/Demography) This vacancy is immediately available. Applicants should have a Ph.D. or equivalent in Human Geography, expertise in Transport Geography, and working familiarity with the groups. Experience in applied studies would be an advantage since the Department encourages staff and students to work on practical problems related to development in Papua New Guinea. The successful applicant for this position will be required to teach courses in Transport Geography with emphasis on problems associated with transportation in developing countries. The appointee will also be expected to contribute to introductory geography course. He/She will be encouraged to undertake research in Transport Geography with special emphasis on the use of map and air photo collection and his access to four wheel drive vehicles in many parts of the country to facilitate research. The successful applicant will be expected to take up duties by 1st July 1985. Additional information may be obtained from the Head of the Department.

Lecturer/Senior Lecturer in Pathology-P.031003/85
(Pathology Department) Applicants should be medically qualified with suitable postgraduate qualifications and training in Pathology, preferably Chemical Pathology but not excluding Histopathology, Haematology and Haematological Medicine. Applicants should be registered with the Papua New Guinea Medical Board, and has teaching experience at graduate and postgraduate level plus research interests. Previous experience in a developing country is highly desirable. The appointee is required to take up duties in July 1985. Further information may be obtained from the Head of Pathology, Medical Faculty, PO Box 5623, BOROKO, Papua New Guinea.

Senior Tutor/Lecturer in Commerce-G.081006/85
(Department of Post-Vocational, Technical, Commercial and Secretarial Studies, Garnett Technical College) The above department has an immediate vacancy for a Senior Tutor/Lecturer in Commerce. This appointee commences in June 1985 and is two-year contract will be offered, with the possibility of renewal for further three years. The successful candidate will be responsible for teaching Commerce and Accounting which will Diploma in Business Studies (Secretarial) programme, and will also teach clerical subjects to Technical Teacher Education Students, together with the supervision of their teaching practice. Applicants should have a degree in Commerce, with a major in Accountancy, postgraduate qualification in Education and successful teaching experience at Secondary or Tertiary level.

SALARY: PROFESSOR K19255, SENIOR LECTURER K17135, LECTURER GR.II K14905, LECTURER GR.I K12755, SENIOR TUTOR, II K14905, SENIOR TUTOR I K12755, PER ANNUM, PLUS GRATUITY.

Other Conditions: The successful applicant will be normally offered a contract for a three year contract ending at the end of a semester. The gratuity entitlement is based on 24% of salary earned during the period. Salary is tax-free, or can be taxed at a flat rate of 25%. In addition to the salary outlined above, the high benefits include: return fare, approved research, rent-free accommodation, appointment and repatriation airfares for appointee and dependents, financial assistance towards the cost of transporting personal effects to and from Papua New Guinea, generous annual recreation leave and home airfare available after each 12 months of continuous service, generous provisions subsidies for children attending schools in PNG and overseas, a salary continuation scheme to cover extended illness or disablement. Applicants wishing to arrange shipments from their home to commence will be asked to quote the terms and conditions for under-deckage.

Application will be treated as strictly confidential and should include a full curriculum vitae, a recent small photograph and the names and addresses of three referees, in order to expedite the appointment procedure, applicants are asked to list their referees to send confidential reports directly to the University without waiting to be contacted. Applications should be addressed to the Secretary (Personnel Section), University of Papua New Guinea, PO Box 320, UNIVERSITY POST OFFICE, Papua New Guinea, by 7 June 1985. Candidates in UK should also send a copy of their application to the Secretary General, Association of Commonwealth Universities, 36 Gordon Square, London WC1H 0PF. (70697)

THE OPEN UNIVERSITY

Part-Time Tutorial and Counselling Staff

Applications are invited for part-time tutorial and counselling staff for the 1986 academic year. Appointments will be made in the latter part of 1985 prior to the next academic year which starts in February.

In 1986 the University will be offering more than 130 undergraduate courses in 5 Faculties, Arts, Mathematics, Science, Social Science, Technology and the School of Education. The Centre for Continuing Education will be increasing the range of short professional updating courses it has on offer.

Existing members of the University's part-time tutorial and counselling staff will be sent application forms during May as a matter of course. The number of appointments of new staff will, therefore, be somewhat restricted and will vary between courses and regions. However, some vacancies will exist in all regions of the country. Applicants should be graduates or graduate equivalent. Recent teaching experience in further, adult or higher education is highly desirable.

To obtain application forms and further particulars send a POSTCARD to Deirdre Buck, The Clerk, Tutors Office (TH), The Open University, P.O. Box 82, Walton Hall, Milton Keynes, MK7 6AU.

To ensure that your application is considered for the 1986 academic year forms should be submitted to one of the University's Regional Offices by Friday 14th June 1985.

UNIVERSITY OF SALFORD
Department of Aeronautical and Mechanical Engineering

CHAIR IN DESIGN ENGINEERING

This newly-established Chair is intended to strengthen further the undergraduate and postgraduate activities in design in the Department. Applicants with design experience in the aerospace industry will be particularly welcomed though the successful candidate may have a distinguished research record in any field of aeronautical, mechanical or materials engineering science.

Design is a core subject on all undergraduate courses in the Department and is also central to a wide range of research projects, eg the design of aerodynamically optimal internal flow systems, the design of flexible manufacturing systems and the computer-aided design of multivariable digital control systems. The new Professor will share responsibility for the academic direction of the entire Department of Aeronautical and Mechanical Engineering with the Professor of Engineering Dynamics and the Professor of Manufacturing Systems Engineering, in association with the British Aerospace Professor of Aeronautical Engineering and the Deinichi-Sykes Robotics Professor of Advanced Manufacturing Technology.

The University fosters strong links with industry and Professors are encouraged to undertake appropriate consultancies. Salary within the Professorial range (average £21,236 pa – under review). (Intending applicants may address informal enquiries to Professor Brian Porter, Chairman of the Department of Aeronautical and Mechanical Engineering (Tel: 061-736 5843; ext 566).) Formal applications should be lodged by 31st May 1985 with the Registrar, University of Salford, Salford, M5 4WT, England, from whom further particulars of this post may also be obtained (Tel: 061-736 5843; ext 7172). Please quote reference ME/399/T.H.E.S.

(70671)

LINCOLN COLLEGE, OXFORD

BURSARSHIP

The College proposes to appoint to the full-time permanent post of Bursar, as from 1 January, 1986. The Bursar, who is an official Fellow and member of the Governing Body, has overall responsibility for the College Buildings and estates, for domestic and financial affairs, and is centrally involved in College policy, planning and development. Applicants will be expected to have relevant experience in administration, staff-management and finance.

Further particulars and application forms can be obtained from the Rector, Lincoln College, Oxford OX1 3DR, to whom completed applications, with the names of three referees, should be sent not later than 1 June, 1985.

(70661)

UNIVERSITY OF DUNDEE

DIRECTOR OF CONTINUING EDUCATION

Applications are invited from appropriately qualified candidates for the new post of Director of the Centre for Continuing Education, tenable from October 1985. The Centre, comprising the present University Department of Education for Continuing Education, has a wide-ranging role in the organisation and development of the University's Continuing Education provision. In addition to the well-established programme of extra-mural courses in Dundee and Tayside and postgraduate teaching and research in Education, the Centre will be responsible for wider Continuing Education, and is particular post-experience vocational courses, throughout the University in liaison with academic departments.

The appointment will be made either on the Grade III scale (currently £14,155-£17,705 but due for review) or on Grade IV (current minimum £18,070 but similarly due for review). Although the Director's role will be primarily an organisational one there is a possibility of the title of Professor being accorded to a suitably qualified candidate.

Further particulars of the post can be obtained from the Personnel Officer, The University, Dundee DD1 4HN (telephone Dundee 23181 extension 4016) with whom, applications (10 copies) should be lodged with the names of 3 referees, and quoting reference 237/1/860 should be lodged not later than 14 June 1985.

(70663)

University of Durham
Department of Mathematical Sciences

Applications are invited for

A LECTURESHIP

tenable from 1 October 1985. Applicants should have research interests in Numerical Analysis, Approximation Theory, Optimisation or a closely related field.

Salary on the scale £7,690 – £14,925 with USS.

Applications (5 copies) naming three referees should be sent by 22 May 1985 to the Registrar, Science Laboratories, South Road, Durham DH1 3LE, from whom further particulars may be obtained (quote ref. 386/A).

(70677)

University of Birmingham

ADMINISTRATIVE ASSISTANT

Applications are invited for appointment as Administrative Assistant in the Registry with duties initially in Senate Division. Good General Degree and administrative experience, preferably in academic institution, are required.

Salary in scale £6,600 – £13,185 (under review), plus superannuation.

Applications by 13th June 1985 quoting reference 386/A to the Registrar, University of Birmingham, P.O. Box 363, Birmingham B15 2TT, from whom further particulars and application forms may be obtained.

(70687)

EAP
Ecole Européenne des Affaires
European School of Management Studies
Europäische Wirtschaftshochschule

STUDENT COUNSELLOR

A vacancy occurs for a full-time experienced student counsellor to join the School in September. This is a new post, the service having previously been provided by a small group of part-time staff.

In addition to working with very bright, mixed nationality students in their early twenties, the person appointed will be expected to liaise with teaching staff and offer a specific contribution in addition to general counselling.

The post is Oxford based, but links with staff in France and Germany will also be necessary.

Salary range: £11,000–£14,000, depending upon qualifications and experience.

Further information from: UK Director, European School of Management Studies, 12 Merton Street, Oxford OX1 4JH.

(70669)

university college of swansea

Administrative Officer

Applications are invited for the vacancy of Administrative Officer for the School of Biological Sciences. The successful applicant will be required to manage the technical, secretarial, clerical and gardening support services of the School comprising about 45 staff. Applicants should have a minimum of 16 years experience in a laboratory managerial position and a good honours degree, preferably in a biological science or related discipline.

The appointment, which will date from August 1, 1985 or as soon as possible thereafter, will be within the range £13,625 – £14,925 per annum on the Lecturers scale.

Further particulars and application forms (2 copies) may be obtained from the Personnel Officer, University College of Swansea, Singleton Park, Swansea, SA2 8PP, to which office they should be returned by Friday, June 7, 1985.

(80217)

University of Liverpool
Department of Industrial Studies

Inventory Modelling for Engineering Parts

Provisioning in the Computer Industry

SERC CASE STUDENTSHIP

(leading to a Ph.D.) with Dawson Berkeley and Partners Limited in association with Systems Computers Limited.

This exciting opportunity to spend time in one of the leading computer companies developing a computer system for spare part and engineering support is available to applicants who have (or expect to have) first or upper second class degrees. We are looking for highly motivated research students with individual ability of the Department of Community Medicine.

The post is funded by the Scottish Health Service Common Services Agency and will be available for at least three years.

The appointment will be made on the non-clinical salary scale £6,600 – £13,185 (under review), plus £14,925 but due for review, with initial placing depending on qualifications and experience.

Further Particulars are available from the Personnel Officer, the University, Dundee DD1 4HN (Tel: 0382 23181, Ext. 4015) with whom applications (6 copies) should be lodged by 7th June 1985. Please quote reference 237/17/85(O). (80380)

University of Birmingham
Department of Psychology

TEMPORARY LECTURESHIP IN PSYCHOLOGY

Applications are invited for the above post to replace a member of staff taking leave of absence. Candidates should have a Ph.D. or equivalent and research interests in any area of Psychology. They should be willing to contribute to courses in research methods.

Salary on the Lecturer scale £7,690 – £14,925 plus superannuation.

For further particulars phone 021-472 1301 quoting reference 86.

No formal application forms. Three copies of application, including the names of three referees to Assistant Registrar (Academic Appointments), The University, P.O. Box 363, Birmingham B15 2TT, to whom further particulars and application forms may be obtained.

(80389)

UNIVERSITY OF EAST ANGLIA
Norwich

LECTURER IN COMPUTING STUDIES

Applications are invited for the above permanent post in the School of Information Systems. Preference will be given to candidates having appropriate qualifications, experience and research interests within the broad area of Computing Science. Candidates with a background in software engineering from both a theoretical and a practical point of view are particularly encouraged to apply. The appointment will commence on 1 September 1985 or as soon as possible thereafter. The salary will be at an appropriate point on the Lecturer scale, £7,690 to £14,925 per annum (under review), plus USS benefits.

Applications (three copies) which should contain a full curriculum vitae, including exact date of birth, together with the names and addresses of three persons to whom reference may be made, should be lodged with the Establishment Officer, University of East Anglia, Norwich NR4 7TJ (telephone (0603) 56161 ext 2126) from whom further particulars may be obtained, not later than 14 June 1985. No forms of application are issued.

(70668)

University of Dundee

NON-CLINICAL LECTURER

Department of Community Medicine

Applications are invited from graduates in Social Sciences, Nursing or Education who have an interest in the application of their discipline to health related issues in general and prevention in particular. Applicants with experience in teaching in a medical environment and who have completed health related research are preferred.

The Lecturer will be expected to co-operate with ongoing research, particularly the recently funded project on health promotion with a context of primary care. Encouragement will be given to the candidate to develop relevant new research and opportunities exist for registering for a higher degree. The ongoing research not already in possession of a postgraduate qualification. The lecturer will be expected to contribute to undergraduate and postgraduate teaching programmes which the Department of Community Medicine.

The post is funded by the Scottish Health Service Common Services Agency and will be available for at least three years.

The appointment will be made on the non-clinical salary scale £6,600 – £13,185 (under review), plus £14,925 but due for review, with initial placing depending on qualifications and experience.

Further Particulars are available from the Personnel Officer, the University, Dundee DD1 4HN (Tel: 0382 23181, Ext. 4015) with whom applications (6 copies) should be lodged by 7th June 1985. Please quote reference 237/17/85(O). (80380)

University of Liverpool
Department of Industrial Studies

CASE STUDENTSHIP

in collaboration with AC Spark Plug Company, Edinburgh, at which place we are part of the General Motors Corporation.

The work will be based at AC's Bunzen Plant, Production Engineering (R & D) operation in Liverpool. The project in concerned with the management of the product development process from concept to commercial manufacture, and offers an excellent challenge in the area of high technology development management.

Applicants should be highly motivated graduates or students expecting to graduate in 1985 with, or to be working for, a second class degree in Engineering, Business Studies, Management, Engineering Science or a related subject. A relevant degree in addition to the normal SERC studentship value AC will pay the maximum allowable additional payment of £1,605 p.a.

Informal discussions relating to this studentship can be arranged by telephoning Mr David Jones, Department of Industrial Studies, on 051-709 6022, Ext. 2557/59.

Product Engineering Management

Applications are invited for

CASE STUDENTSHIP

in collaboration with AC Spark Plug Company, Edinburgh, at which place we are part of the General Motors Corporation.

The work will be based at AC's Bunzen Plant, Production Engineering (R & D) operation in Liverpool. The project in concerned with the management of the product development process from concept to commercial manufacture, and offers an excellent challenge in the area of high technology development management.

Applicants should be highly motivated graduates or students expecting to graduate in 1985 with, or to be working for, a second class degree in Engineering, Business Studies, Management, Engineering Science or a related subject. A relevant degree in addition to the normal SERC studentship value AC will pay the maximum allowable additional payment of £1,605 p.a.

Informal discussions relating to this studentship can be arranged by telephoning Mr David Jones, Department of Industrial Studies, on 051-709 6022, Ext. 2557/59.

Applications, together with the names of two referees should be received as soon as possible by the Registrar, The University, P.O. Box 147, Liverpool L69 3BX.

Quote Ref: RV/976, (80117)

University of Birmingham

ADMINISTRATIVE ASSISTANT

Applications are invited for appointment as Administrative Assistant in the Registry with duties initially in Senate Division. Good General Degree and administrative experience, preferably in academic institution, are required.

Salary in scale £6,600 – £13,185 (under review), plus superannuation.

Applications by 13th June 1985 quoting reference 386/A to the Registrar, University of Birmingham, P.O. Box 363, Birmingham B15 2TT, to whom further particulars and application forms may be obtained.

(80389)

Universities continued

University of Auckland
New Zealand

LECTURESHIPS IN ELECTRICAL AND ELECTRONIC ENGINEERING

(School of Engineering)

Closing Date: 30 June 1985

Several positions are available and applications are sought from well qualified applicants with advanced qualifications and experience in any one of a wide range of fields including control systems, and software engineering, microwaves and radio, telecommunication technology and signal processing, communication electronics and systems, power electronics, and power system control and simulation.

SENIOR LECTURESHIP/ ASSOCIATE-PROFESSORSHIP IN INDUSTRIAL ECONOMICS

(Department of Economics)

Closing Date: 31 July 1985

Applicants should have advanced qualifications and a strong research record. The successful candidate will provide leadership within the Department of Economics for research and teaching in public policy regarding industrial development. Research into New Zealand issues will also be required. The appointee will be expected to contribute to teaching and supervision of a candidate may be in one of several relevant fields such as industrial organisation and pricing, financial economics, resources economics, international trade or development economics.

Commencing salaries will be established within the following ranges: Lecturer NZ$25,628 – $27,948, Senior Lecturer NZ$29,430 – $31,840, Associate Professor NZ$40,885.

Conditions of Appointment and Method of Application are available from the Assistant Registrar (Academic Appointments), University of Auckland, Private Bag, Auckland, New Zealand, or the Secretary General, Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF. Applications in accordance with the Method of Application should be forwarded as soon as possible but not later than the closing dates stated.

(80353) H1

University of Warwick

LECTURESHIP IN MARKETING AND STRATEGIC MANAGEMENT

Applications are invited for a lecturer to teach, research, and publish in the field of Marketing and Strategic Management. The successful candidate will be joining a research-oriented group which includes Professor Kirby Stanley, Professor Peter Wensley. This post is additional to the one recently advertised. Applications for this post need not apply.

It is important that applicants should have the ability to pursue high quality research and encourage it in others.

The appointment will be at the Lecturer scale: £7,690 – £14,925 p.a., (under review). Starting date negotiable.

Further details from the Deputy University of Warwick Appointments Officer, Coventry CV4 7AL, quoting reference Ref. No. 40/9/85/L (should be sent by 31st May 1985).

Please quote Ref. No. 40/A/ (80385) H1

The University of Sheffield
Department of Civil and Structural Engineering

APPOINTMENT OF A LECTURER

Applications are invited from men and women in the above department for the above post, tenable from 1 October 1985 or as soon as possible thereafter. The successful candidate will be expected to contribute to teaching in Years 1 and 2, and to assume specialist responsibility for nineteenth-century studies in Years 3 and 4.

Commencing salary will be at the lower end of the Lecturer scale £7,690 – £14,925.

Applications (6 copies) including a full curriculum vitae and the names and addresses of two referees should be submitted not later than 14th June, 1985 to the Personnel Office, University of Sheffield, 62 South Street, Sheffield S1 4DA.

Please quote reference No. 1164. (80375) H1

National University of Lesotho

LECTURER/ SENIOR LECTURER IN POLITICAL AND ADMINISTRATIVE STUDIES

Applications are invited from suitably qualified persons for the above position in the Department of Agriculture. Applicants should have a recognised qualification in laboratory technology, and experience relevant to laboratory work in an academic institution. Preference will be given to applicants with experience in agriculture or biological sciences.

The appointee will be responsible for the organisation and administration of teaching and research laboratories of the Department and for the provision of full technical services to teaching and research staff. In addition the appointee will be required to design and implement an active training programme for national technical staff. Duties will also include overall supervision of budgeting, purchasing of equipment, and control of stores and supplies.

Salary: Chief Technical Officer M19,408 per annum (K1 = £2. 0.7509 approx.).

The initial contract period is for three years. Other benefits include a gratuity of 24% taxed at 2½%. Appointment and repatriation fares, leave fares for the staff member and family after 18 months of service, settling-in and settling-out allowances, six weeks paid leave per year, education fares and assistance towards school fees. Free housing, salary protection plan and medical benefit schemes are available.

Detailed applications (two copies) with curriculum vitae together with the names and addresses of three referees, and indicating earliest availability to take up appointment, should be received by: The Registrar, Papua New Guinea University of Technology, Private Mail Bag, Lae, Papua New Guinea, by 7 June 1985. Applicants resident in the United Kingdom should also send one copy to the Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF, from whom further general information may be obtained.

(80374) H1

University of Warwick

RESEARCH FELLOW/SENIOR RESEARCH FELLOW

The University is establishing a Performance Unit in the Department of Economics, at the request of the House of Commons. The Unit will undertake analysis, testing and design of economic policy with the aid of UK macroeconomic models deployed at the ESRC Macroeconomic Modelling Bureau, and make specific investigations for Select Committees, Individual MPs and the Office of Commons Library. Applications are invited for two posts.

Appointment will be made either as Senior Research Fellow, on the Research Range II scale: £11,205 - £14,925 p.a., or as Senior Fellow/Associate, on the Range 1A scale: £7,690 - £15,185 p.a., according to qualifications and experience, for three years initially for 1st September 1985, with the possibility of extension for a further three years. Applicants should be well qualified in economics or econometrics, and for the more senior post should have considerable experience of macroeconomic modelling and policy analysis. Candidates who wish to be seconded from their present positions are also invited to apply.

Further particulars and application forms from the Registrar, University of Warwick, Coventry CV4 7AL, quoting Ref. No. 40/9/85/R. Closing date for receipt of applications: 7th June 1985.

(80219) H1

University of Edinburgh
Department of Humanity

Applications are invited for the post of

LECTURER IN LATIN

tenable from 1 October 1985.

The successful candidate will be required to teach Latin language and literature at all levels. In particular an ability to teach one area(s) of Latin prose literature at Honours level is expected. An ability to offer teaching in related disciplines within the Classics area or within other areas relevant to the courses offered by the Department of Humanity will be an advantage.

Commencing salary will be at the lower end of the Lecturer scale (£7,690 - £14,925).

Applications (6 copies) including a full curriculum vitae and the names and addresses of two referees should be submitted not later than 14th June, 1985 to the Personnel Office, University of Edinburgh, 63 South Bridge, Edinburgh EH1 1LZ, from whom further particulars can be obtained.

Please quote reference No. 1186. (80377) H1

Papua New Guinea University of Technology

CHIEF TECHNICAL OFFICER

Department of Agriculture

Applications are invited from suitably qualified persons for the above position in the Department of Agriculture. Applicants should have a recognised qualification in laboratory technology, and experience relevant to laboratory work in an academic institution. Preference will be given to applicants with experience in agriculture or biological sciences.

The appointee will be responsible for the organisation and administration of teaching and research laboratories of the Department and for the provision of full technical services to teaching and research staff. In addition the appointee will be required to design and implement an active training programme for national technical staff. Duties will also include overall supervision of budgeting, purchasing of equipment, and control of stores and supplies.

Salary: Chief Technical Officer K19,408 per annum (K1 = £2. 0.7509 approx.).

The initial contract period is for three years. Other benefits include a gratuity of 24% taxed at 2½%. Appointment and repatriation fares, leave fares for the staff member and family after 18 months of service, settling-in and settling-out allowances, six weeks paid leave per year, education fares and assistance towards school fees. Free housing, salary protection plan and medical benefit schemes are available.

Detailed applications (two copies) with curriculum vitae together with the names and addresses of three referees, and indicating earliest availability to take up appointment, should be received by: The Registrar, Papua New Guinea University of Technology, Private Mail Bag, Lae, Papua New Guinea, by 7 June 1985. Applicants resident in the United Kingdom should also send one copy to the Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF, or to the Registrar of the University, P.O. Box 36, Dunedin, New Zealand. (80349) H1

University of Hong Kong

LECTURER IN JAPANESE

(Re-advertisement)

Applications are invited for a Lectureship in Japanese, to which it is hoped to make an appointment from as soon as possible. Japanese language courses are currently taught in the Language Centre but will be transferred to a new Department of Japanese which the University plans to establish shortly.

Candidates should, of course, be fluent in Japanese and be conversant with current approaches to the teaching of foreign languages. Additionally they should be well grounded in at least one of the following areas: (1) Japanese and general linguistics, (2) applications of educational technology to the teaching/learning of Japanese, (3) Japanese cultural studies. Apart from teaching, the appointee will be expected to organise and co-ordinate programmes of studies, and to take a lead in curriculum development.

English is the official medium of instruction, but Japanese is also taught via the native language as well as Chinese.

Annual salary (superannuation) is on an 11-point scale: HK$149,090 – 247,560 (approx. £14,810 – 24,760 (English equivalent sept. April 85, 1985).

Starting salary will depend on qualifications and experience.

At current rates, salaries tax will not exceed 17% of salary. Housing benefits at a rental of 7½% of salary, children's education allowances, leave and medical benefits are provided.

Further particulars and application forms may be obtained from the Secretary General, Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF, or from the Appointments Unit, Secretary's Office, University of Hong Kong, Hong Kong. Closing 15 June 1985.

(80326) H1

University of Birmingham
Centre for Computing and Computer Science

COMPUTER OFFICER

Applications are invited from graduates in relevant fields for academic/industrial or research experience for a post of Computer Officer responsible for practical work in the Telesoftware Group. A large range of graphics advice is in use and future developments will principally centre on the Tektronix Nonwelly Multics System.

Salary according to qualifications and experience will be on the Computer Officer scale £6,600 - £13,185 or £14,925 plus superannuation.

Further particulars from Dr R. Bushaway, Administrative Officer, Science Division, The Registry, University of Birmingham, P.O. Box 363, Birmingham B15 2TT, to whom applications (3 copies) including full Curriculum Vitae, naming three referees, should be sent by 14th June, 1985. (80325) H1

University of Otago
Dunedin, New Zealand

ASSISTANT LECTURER IN INFORMATION SYSTEMS

Applications are invited for appointment as Assistant Lecturer in the Department of Quantitative and Computer Studies within the Faculty of Commerce. The primary purpose of the post is to assist with the teaching of Information Systems.

The Department broadly follows the curricula recommendations as defined by the ACM Curriculum Committee. In addition it offers courses on Computer Management, Data Processing Administration, Decision Support Systems and Expert Systems. There is a heavy emphasis on systems analysis and design, and courses have a strong practical component.

The Department is interested in technology transfer between the academic community and practitioners, and the appointee will be encouraged to conduct research on the applications of information systems. Publication of research results and articles of an expository nature are thus encouraged.

Applicants within other associated disciplines such as Accounting, Operations Research or Marketing, and who have a knowledge of Information systems are encouraged to apply.

Salary: NZ$17,698 per annum to NZ$20,489 per annum.

Appointments at the level of Assistant Lecturer are normally for a period of three years.

Applications close on 31 July 1985.

Intending applicants are invited to write for further particulars to the Secretary General, Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF, or to the Registrar, University of Otago, P.O. Box 56, Dunedin, New Zealand. (80349) H1

University of Exeter
Department of Economic History

LECTURESHIP IN MODERN ECONOMIC OR SOCIAL HISTORY

(Ref. No. 3425)

Applications are invited for the above post tenable from 1 October 1985 from candidates with interests in British, European or International Economic or Social History, since 1700.

Salary within the range £7,320 – £8,925 p.a. on the scale £7,320 – £14,925 p.a. (under review).

TUTORSHIP IN ECONOMIC HISTORY

(Ref. No. 3426)

Applications are invited for the above post, tenable for one year from 1 October 1985. Preference will be given to candidates specialising in British economic and social history since 1485, and international economic history since 1850.

Salary will be £6,600 per annum (under review).

Further particulars for both posts available from the Personnel Office, University of Exeter, Exeter EX4 4QJ to whom applications, giving the names of three referees, should be sent by 10 June 1985 quoting appropriate reference number. (80338) H1

University of Edinburgh
Department of History

Applications are invited for a

LECTURESHIP IN EARLY MODERN EUROPEAN (WITH BRITISH) HISTORY c.1500 - c.1750

Applicants should have a research interest in some aspect of early modern European History, but should also be willing to contribute to the teaching of British History within the Department.

The post is tenable from 1 October 1985 and the starting salary will be at the lower end of the Lecturer scale (£7,690 - £14,925).

Applications (6 copies), including a c.v., a statement of research interests and the names of three referees, should be sent by 31st June, 1985 to Personnel Officer, University of Edinburgh, 63 South Bridge, Edinburgh EH1 1LZ, from whom further particulars can be obtained.

Please quote reference no. 1189. (80374) H1

University of Liverpool
Department of Industrial Studies

SERC RESEARCH STUDENTSHIP IN NEW MANAGEMENT SYSTEMS FOR NEW MANUFACTURING TECHNOLOGY

The project is concerned with investigating the changing role, structure and personnel requirements of manufacturing companies' Technical/Engineering function as it responds to the exciting changes now taking place in manufacturing technology. Much of the work will be conducted within companies (particularly in the micro-electronics sector).

Applications are invited from highly motivated graduates or students graduating in 1985 with at least an upper second class degree in Engineering Management, Management or a related interdisciplinary degree.

Informal discussions relating to this studentship can be arranged by telephoning Mr Ian Benson, Department of Industrial Studies, on 051-709 6022, Ext. 2357/59.

Applications, together with the names of two referees, should be received as soon as possible by the Registrar, The University, P.O. Box 147, Liverpool L69 3BX.

Quote Ref: RV/976, (80318) H1

University of Canterbury
New Zealand

The Council of the University invites applications for the following position:

SIR JAMES FLETCHER CHAIR OF BUSINESS ADMINISTRATION

The successful candidate will have demonstrated academic leadership and possess research interest in one or more of the areas of business administration.

The appointee will take up the position in 1986 on a date to be arranged.

At present the salary for a Professor is within the range of NZ$40,313 to NZ$45,805 per annum. The corresponding range for a salary of the appointee may be increased as a result of the review of individual professorial salaries which the University makes at the beginning of each year.

Further particulars and Conditions of Appointment may be obtained from the Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF.

Applications close with the Registrar, University of Canterbury, Private Bag, Christchurch, New Zealand on 31 July, 1985. (80344) H1

The University of Lancaster
Department of Visual Arts

TEMPORARY LECTURESHIP IN ART AND DESIGN HISTORY

Applications are invited for a temporary lecturer ship in Art and Design History in the Department of Visual Arts. The post is for three days a week during the Lancaster Term and for the years of the 1985/86 academic year.

The successful candidate will teach undergraduate courses in the history of twentieth century painting and sculpture, and the history of product design since 1851. He/she will also be expected to contribute some lectures and seminars to related courses in the department.

Salary within the first three points of the Lecturer salary scale (£7,690 - £8,450 under review).

For further particulars and application forms, please write to the Establishment Office (quoting reference L13/85) University House, Bailrigg, Lancaster LA1 4YW, when applications (five copies) naming the three referees should be sent to arrive not later than 7 June 1985. (80321) H1

University of Cambridge
Emmanuel College

FELLOWSHIPS IN LAW AND MATHEMATICS

The College invites applications for a Fellowship in each of the fields of Law and Pure Mathematics with Mathematical Statistics. The Fellows will each be required to undertake supervision teaching of twelve hours per week during Full Term.

The stipend for each post will be within the range for that for a Assistant Lecturer in the University of Cambridge, that is, £7,690 - £9,880 per annum) less £95 if resident in College. An appointment will normally be at the minimum point of the salary scale.

Further particulars are available from the College Secretary, Emmanuel College, Cambridge CB2 3AP, to whom applications (6 copies) for either post, together with the names and addresses of two referees, should be sent by 4 June 1985. (80273) H1

University of Birmingham
Faculty of Science and Engineering

CHAIR AND HEADSHIP OF THE DEPARTMENT OF ELECTRONIC AND ELECTRICAL ENGINEERING

Applications are invited for the Chair and Headship of the Department of Electronic and Electrical Engineering, which will become vacant from 1.10.85. Preference may be given to candidates with interests in the fields of modern electronics. The office of the Headship need not necessarily be linked with appointment to the Chair.

Salary in the Professional range with superannuation.

Further particulars available from the Vice-Chancellor, University of Birmingham, P.O. Box 363, Birmingham B15 2TT, to whom applications (15 copies) from overseas should be sent by 21st June 1985. (80384) H1

Trinity College of Music

ASSISTANT DIRECTOR OF STUDIES

The College will shortly appoint an Assistant Director of Studies to take up office this autumn. Candidates who should be Graduates in Music must be capable of assisting in the supervision and co-ordination of the academic work and performing activities of the student body of about 400.

Salary will be on the Burnham Senior Lecturer Scale plus London Allowance if relevant.

Full details and application form from the Administrator, Trinity College of Music, 11-13 Mandeville Place, London W1M 6AQ. (01-935 5773). Closing date 14th June 1985. (80338) H1

Universities continued

University of Exeter
Department of Law

LECTURESHIP IN LAW

Applications are invited for the above post, tenable from 1 October 1985.

The duties attached to this post will include the teaching of Land Law and Trusts and preference will be given to candidates with interests in those fields.

Salary will be within the range of £7,525 - £9,945 per annum, on the scale £7,525 - £14,925 per annum (under review), with placement according to age and experience.

Further particulars available from the Personnel Office, University of Exeter, Exeter EX4 4QJ to whom applications (six copies, candidates living overseas one copy) giving names of three referees, should be sent by 7 June 1985, quoting reference no. 3427. (50340) H1

Brunel University
Department of Mathematics and Statistics

TEMPORARY LECTURESHIPS IN MATHEMATICS

Applications are invited for two temporary Lectureships in Computational and Applied Mathematics (Two Years), Pure Mathematics (One Year).

Applicants should possess strong research records and be ready to teach mathematics both to mathematicians and to non mathematicians.

Salary within the Lecturer scale £7,520 - £9,360 per annum (under review), plus £1,335 per annum London Allowance, with USS benefits.

Further particulars and an application form may be obtained from the Personnel Secretary, Brunel University, Uxbridge, Middlesex UB8 3PH on receipt of a self-addressed envelope. Closing date: 6 June 1985. (50358) H1

Mansfield College Oxford

TUTORIAL FELLOWSHIP IN ENGLISH LITERATURE

The College proposes to elect a Fellow and Tutor in English Literature with effect from 1st October, 1985. The new Fellow will be The College's Director of Studies in English, with particular responsibility for the teaching of literature from the early sixteenth century until the present. He or she will be expected to engage in research and also to teach for the College in Full Term.

Salary, related to age and experience, will be on the scale for College Fellows, currently £8,044 to £16,962, with dining rights, housing allowance, etc.

Further particulars may be obtained from the College Secretary, Mansfield College, Oxford OX1 3TF, to whom applications (six copies) giving details of qualifications and experience and the names of three referees should be sent not later than 6th June, 1985. (50359) H1

University of Aberdeen

WELLCOME LECTURESHIP IN PHYSIOLOGY

Applications are invited for a Wellcome Lectureship in the Department of Physiology which will be tenable for 5 years.

The appointee will be expected to pursue research into cardiovascular and neurophysiological changes associated with hypertonic conditions. Previous experience in hypertonic work is not essential although in such cases individuals should have experience and interests in cardiovascular reflex control or other aspects of the neurosciences including physiology of peptides.

Salary on Lecturer Scale £7,520 to £14,925 per annum (scale under review), with appropriate placing.

Further particulars and application forms from The Secretary, The University, Aberdeen, with whom applications (2 copies) should be lodged by 7 June 1985. (50329) H1

University of Oxford

NEW BLOOD UNIVERSITY LECTURESHIP IN HIGH ENERGY ASTROPHYSICS

Applications are invited for a New Blood University Lectureship in High Energy Astrophysics, and related areas tenable from 1 October 1985. This lectureship may be held in conjunction with a fellowship at St. Hilda's College, which under its statutes may admit women fellows only. It is hoped that a fellowship at another college may be available in due course if a man is appointed.

Further particulars may be obtained from Professor D.E. Blackwell, Department of Astrophysics, South Parks Road, Oxford OX1 3RQ (Tel. 0865 511362) to whom applications (eight typed copies or one from overseas applicants) should be sent by 15 June 1985. (50364) H1

University of Exeter
Department of History & Archaeology

Applications are invited for

TUTORSHIP IN HISTORY

tenable from 1 October 1985 for a period of 9 months at a salary of £6,600 per annum pro rata (under review).

Preference will be given to candidates completing a postgraduate degree and specialising in the history of Europe since c. 1800.

Further particulars available from the Personnel Office, University of Exeter, Exeter EX4 4QJ to whom applications (five copies) should be sent by 10 June 1985 quoting reference no. 3424. (50318) H1

University of Reading

SENIOR ASSISTANT FINANCE OFFICER

Applications are invited from qualified Accountants for the above post, tenable from 1 October 1985. Preference will be given to those with practical experience of computers/computer systems.

Salary on the Grade III Administrative scale £14,135 to £17,705 per annum (under review) plus USS/USPS benefits.

Further particulars and application forms (6 copies) are available from the Personnel Office, University of Reading, Whiteknights, PO Box 217, Reading RG6 2AH. Tel. (0734) 318731 Ext. 2119. Please quote ref. F. 23. Closing date: 14 June 1985. (50325) H1

University of Birmingham
Faculty of Arts

PEYTON AND BARBER CHAIR OF MUSIC AND HEADSHIP OF THE DEPARTMENT OF MUSIC

Applications are invited for the Peyton and Barber Chair of Music and Headship of the Department of Music which will become vacant from 1st October, 1985 on the retirement of Professor Ivor Keys.

Salary in the professional range, plus superannuation.

Further particulars available from the Vice Chancellor, University of Birmingham, P.O. Box 363, Birmingham B15 2TT, to whom applications (10 copies, one from overseas) should be submitted by 5th July, 1985. (50391) H1

University of Durham

DEPUTY TREASURER

Applications are invited from accountants with appropriate experience for this senior post, which falls vacant on 1st October 1985 on the retirement of the present holder. The appointment offers an excellent opportunity to play a significant part in the financial management and planning of the University in a challenging period, and commitment and professional ability are essential.

Salary with Administrative Grade III £14,135 - £17,705 (under review).

Applications (3 copies) including the names and addresses of three referees, should be sent not later than Friday, June 14th, 1985 to Miss C.M. Webster, Old Shire Hall, Durham DH1 3HP, from whom further particulars may be obtained. (50371) H1

University of Reading
Agricultural Extension and Rural Development Centre

Applications are invited for

LECTURESHIP

in the organisation and management of extension services in agriculture from the Personal Chair. The appointment is from 1 October 1985 for a fixed term of three years.

Salary scale £7,520 to £14,092 p.a. (under review) plus USS/USPS benefits.

Further particulars and application forms (6 copies) are available from the Personnel Officer, University of Reading, PO Box 217, Reading RG6 2AH. Tel. (0734) 318731 Ext. 2119. Please quote Ref. ACE 3/85. Closing date: 20 June 1985. (50372) H1

University of Durham

CHAIR OF STATISTICS

Applications are invited for the newly established Chair of Statistics in the Department of Mathematical Sciences from candidates with research interest in any field of Statistics. The appointment will date from 1 October 1985 or such date as may be arranged.

The appointment will be made on the basic Professorial salary scale (£18,175 - £19,156 p.a. - under review) together with the usual pension arrangements.

Applications (twelve copies), including the names of three referees, must be submitted not later than Friday, 14 June 1985 to the Registrar and Secretary, Old Shire Hall, Durham DH1 3HP, from whom further particulars may be obtained. (50368) H1

The University of Manchester
Manchester Business School

LECTURER IN MANAGERIAL PSYCHOLOGY

Applications are invited for the above post from suitably qualified candidates who will be expected to have a good first degree in social psychology, sociology or social anthropology and also a research degree or equivalent research experience and publications.

Further particulars and application forms (returnable for June 17th) from the Registrar, The University, Manchester M13 9PL. Quote ref. 100/85/TRES. (50341) H1

The University College of Wales Aberystwyth

TEMPORARY TUTOR IN INTERNATIONAL POLITICS

Applications are invited for the above one year appointment, tenable from 1 September, 1985. The successful applicant will have some knowledge of International Relations Theory and an interest in Soviet Foreign Policy.

Salary on the scale for Tutors, £6,500 to £8,320 per annum.

Application forms and further particulars can be obtained from the Staff Officer, The University College of Wales, Old College, King Street, Aberystwyth, SY23 2AX (Tel: 0970 31171, Ext. 2071). Closing date for applications: Monday, 24 June 1985. Please quote reference [illegible] (50376) H1

National University of Lesotho

Applications are invited from suitably qualified persons for posts in the Department of Science Education:

LECTURER/SENIOR LECTURER IN MATHEMATICS EDUCATION

LECTURER/SENIOR LECTURER IN PHYSICS EDUCATION

Minimum qualifications for the posts are (i) good first degree in Mathematics/Physics or Physical Science; (ii) formal teacher training qualification; (iii) higher degree in Mathematics or Mathematics Education/Physics, Physical Science or Science Education; and (iv) teaching experience, preferably in Lesotho.

The successful candidates will be expected to contribute to the appropriate courses in initial teacher education and in-service teacher education conducted by the Department, including Mathematics/Physics curriculum studies at diplomas and undergraduate levels, and the Mathematics/Physics elements of other courses, including some weekend and vacation work. A commitment to modern methods of mathematics/science teaching is expected and an ability to contribute to one or more of the following areas would be an added commendation: for the post in Mathematics Education, primary mathematics, curriculum development, technology, workshop practice, computer assisted learning, in-service programmes research in appropriate areas of teaching and learning; for the post in Physics Education, primary science, integrated science curriculum development, technology, workshop practice, computer assisted learning, in-service programmes (AMSTIP).

Salary scales: Lecturer M18,504–M17,064. Senior Lecturer M15,86–M40,338 (entry point according to qualifications and experience) (£1 = M2.40 on 7.5.85).

Detailed applications, including a full circulum vitae naming three referees with full addresses, should be sent to the Senior Assistant Registrar (Appts), National University of Lesotho, PO Roma 180, LESOTHO, Southern Africa. Applicants resident in the United Kingdom should also send a copy of their application to the Secretary General, Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF, from either of whom information on terms of service, etc., may be obtained. Closing date for applications: 7th June 1985. (50386) H1

University of Durham

LECTURESHIP IN ARCHAEOLOGY

Applications are invited for the post of Lecturer in Archaeology (Roman).

The salary will be at an appropriate point on the Lecturer scale (£7,520 - £14,925 per annum), plus superannuation benefits.

Applications (three copies), naming three referees, should be sent to the Registrar and Secretary, Old Shire Hall, Durham DH1 3HP by 25th May 1985, from whom further particulars may be obtained. (50313) H1

Silsoe College
A Faculty of the Cranfield Institute of Technology

TEACHING ASSOCIATE SOIL AND WATER ENGINEERING/ IRRIGATION WATER MANAGEMENT

A vacancy exists for a Teaching Associate to assist academic staff with teaching, laboratory practicals and supervision of research work with undergraduate and postgraduate programmes in Soil and Water Engineering and Irrigation Water Management.

The person appointed will be expected to contribute in some of the following areas: Soil-Plant-Water Relationships; Irrigation Agronomy; Irrigation Engineering and Drainage.

Candidates should have a good honours degree in a suitable discipline such as Agricultural Engineering, Civil Engineering, Agricultural Sciences or Soil Science, and relevant postgraduate experience. Previous teaching experience is not obligatory.

The appointment will be for two years; salary within the scale £6,600 to £10,330 per annum.

Application forms and further particulars may be obtained from the Head of Administration, Silsoe College, Silsoe, Bedford MK45 4DT, Tel: Silsoe (0525) 60428. Closing date for applications: 31 May, 1985. (50320) H1

University of Stirling

LECTURER IN MUSIC

Applications are invited for the above post for appointment from 1 September, 1985, for 3 years and then subject to review. Candidates should have a good Honours Degree in Music and be able to contribute to a diversity of courses ranging from the 12th century to the present. Proven ability in Choral Conducting would be an advantage.

Salary will be on the Lecturer Scale £7,520 - £14,085 (under review).

Further particulars can be obtained from the University Secretary, University of Stirling, Stirling FK9 4LA, Tel: (0786) 73171, Ext. 6314 to whom applications, together with the names of 3 referees, should be submitted by 31st May, 1985. (50375) H1

University of Durham

LECTURESHIP IN ARCHAEOLOGY

Applications are invited for the post of Lecturer in Archaeology (Roman).

The salary will be at an appropriate point on the Lecturer scale (£7,520 - £14,925 per annum), plus superannuation benefits.

Applications (three copies), naming three referees, should be sent to the Registrar and Secretary, Old Shire Hall, Durham DH1 3HP by 25th May 1985, from whom further particulars may be obtained. (50313) H1

Victoria University of Wellington New Zealand

POST-DOCTORAL FELLOWSHIPS

Victoria University of Wellington invites applications for Post-Doctoral Fellowships to be taken up during 1986 for one or for three years. The Fellowships will be funded and awarded by the University Grants Committee and Victoria University and will be tenable at Victoria University. Preference will be given to candidates who wish to work in the Departments of: Anthropology, Botany, Chemistry, Economics, Education, Geography, Mathematics, Physics, Psychology, Russian in the Institutes of Criminology, Statistics and Operations Research and the Research School of Earth Sciences. The University Grants Committee will give priority to current growth areas of research.

The total emolument including travel expenses will be determined at a rate not exceeding NZ$25,662 per annum. Interested applicants should correspond in the first instance with the Departmental Chairmen of Departments in the field for which they wish to apply.

Conditions of Appointment and method of application are available from the Secretary General, Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF; or from the Administrative Assistant (Appointments), Personnel Office, Victoria University of Wellington, Private Bag, Wellington, New Zealand, with whom applications close on 1 July 1985. (50375) H2

University of Newcastle upon Tyne

RIDLEY FELLOWSHIPS

Two in Any Faculty (except the Faculty of Medicine)

One in the Faculties of Science and Engineering

Applications are invited from graduates, including those expecting to graduate in 1985, or the holders of equivalent qualifications, for the above Fellowships tenable from October 1985. Value of the Awards: £5,885, with remission of fees of the successful candidate will be expected to register for a higher degree. The Awards will be for three years, subject to confirmation at the end of the second year.

Further particulars and application forms, which should be returned not later than 31 May 1985, may be obtained from the Registrar (Fellowships), The University, Newcastle upon Tyne NE1 7RU. (50367) H1

University of Auckland

POSTDOCTORAL FELLOWSHIP

Department of Electrical and Electronic Engineering

A Postdoctoral Fellowship is being offered in the topic 'An investigation into the Properties of the Paired-Code-Set (PCS) Augmented Binary T-codes in digitization for transmission of analog information' for a period of twelve months, to be taken up before 31 January 1986. To be eligible for appointment candidates must have successfully completed the requirements for a Ph.D. or equivalent degree, preferably within the last four years.

A monthly allowance of NZ$1,968.50 will be paid, and a return airfare provided.

Further information is available from Professor J.T. Boys, Department of Electrical and Electronic Engineering.

Conditions of Appointment and Application Form are available from the Secretary General, Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF; or the Assistant Registrar (Academic Appointments), University of Auckland, Private Bag, Auckland, New Zealand, to whom applications should be forwarded as soon as possible, but not later than 31 July 1985. (50348) H2

Rothmans Fellowships

Applications are invited for Rothmans Fellowships, which are awarded under the Rothmans University Endowment Fund, set up by Rothmans of Pall Mall (Australia) Limited to enable graduates to undertake postgraduate work within an Australian University.

Rothmans Fellowships are of an annual value of up to $A20,000. A Fellow may be paid travelling expenses incurred in taking up the Fellowship and returning home.

In addition, an amount of $A2,000 per annum towards fees and expenses including the purchase of maintenance of equipment may be paid to the University where the Fellow is working.

A Fellow shall take up a Fellowship before attaining the age of twenty-eight. The Fellowships are open to graduates of any University who have had at least three years postgraduate experience in research. The Fellowships are not open to permanent members of academic staff or applicants proceeding on sabbatical study or other leave (including leave without pay). The Fellowships must be held at an Australian University.

Application forms and further details may be obtained from the Secretary General, Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF; or The Secretary, Rothmans University Endowment Fund, c/ The University of Sydney, NSW 2006, Australia, with whom applications close on 24 July 1985. (50357)

Business Services

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Polytechnics

Fellowships

Queen Mary College (University of London)
Department of Geography and Earth Science

Applications are invited for

RESEARCH FELLOWSHIP

in the Health Research Group to work on an ESRC-funded study of Individual and Area Aspects of Deprivation and Morbidity. The Group has recently conducted community health surveys of households in London and the Fellow will be required to analyse existing survey data on individuals and on 20-24 small area census statistics. The Fellow will also be expected to participate in other activities of the Group within the new Health and Health Care Research Centre.

Applicants should have knowledge and experience of statistical computing procedures, especially for use with social survey data. A background in medical geography or health service research is desirable.

Appointment from 1 July or as soon as possible thereafter for 8 months at a salary in the range £9,690 - £8,940 plus £1,935 London Allowance.

Applications (4 copies) including C.V. and names and addresses of 2 referees, addressed to the Assistant Registrar (Academic), Queen Mary College, Mile End Road, London E1 4NS, by 1 June.

Further details available from Professor David M. Smith, Department of Geography, Queen Mary College, at the above address.

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Polytechnics continued

LANCASHIRE POLYTECHNIC AT PRESTON

Faculty of Business and Management

School of Administrative Studies

Principal Lecturer (Ref AA/227)

to assume responsibility for the co-ordination of course developmental activities leading to (i) a major degree programme and (ii) Dip H.E. in the areas of Administrative and Office Communication Studies.

Lecturer II (Ref. AA/228) (Readvertisement)

with a general and/or office management background to teach Management Skills across the courses located within the School.

School of Organisation Studies

Research Assistant in Industrial Relations (Ref. AA/229)

Required to work on an ESRC funded project from September/October 1985 for a period of 3 years. The research is concerned with examining the dynamics of joint consultation in practice, and it will focus on a small number of organisations.

Applicants should possess a good degree (or equivalent) in a relevant subject, and a Masters degree in Industrial Relations or Manpower Studies would be advantageous.

Informal enquiries to Mick Marchington.

School of Economics

Senior Lecturer in Economics/ Industrial Placement Tutor (Ref. AA/230)

Applicants should be capable of teaching in one or more areas of economics preferably to degree level, and will join a team responsible for finding industrial placements and preparing students for these placements.

Senior Lecturer/Lecturer II in Business/Managerial Economics (Ref. AA/231)

Applicants should be capable of teaching business or managerial economics to degree level, and should have experience of the operations of business organisations.

School of Management Sciences

Lecturer II in Quantitative Business Analysis (Ref. AA/232)

Temporary one year appointment from September 1985 to teach quantitative methods on a wide range of CNAA and BTEC courses.

Lecturer II in Marketing (Ref. AA/233) (Readvertisement)

To teach marketing on CNAA degree and BTEC diploma courses and to contribute to an extensive programme of marketing consultancy.

Salary Scales (under review)

Senior Lecturer £13,095 to £14,580 (Bar) to £16,467
Lecturer II £11,175 to £13,128 (Bar) to £14,061
Lecturer I £7,548 to £12,099
Research Assistant £6,405 to £7,176

Application form and further details obtainable from the Personnel Office, Lancashire Polytechnic, Preston, PR1 2TQ, Tel. (0772) 262027 quoting the appropriate reference number.

Closing Date: 4th June 1985. (70679)

LANCASHIRE POLYTECHNIC AT PRESTON

The Hatfield Polytechnic
School of Engineering

Lecturer 2/Senior Lecturer
Electronic Engineering
Salary £7,812–£12,363/ £11,439–£14,325 pa

Our Division of Electrical Engineering would welcome applicants with a good honours degree in Electronic Engineering or an allied discipline, who wish to teach and research in a lively academic community.

We provide courses at subdegree, degree and post-graduate levels, with a bias towards digital systems, information technology, micro-electronics and telecommunications. An interest in the design of microelectronic systems would be of particular advantage but is not essential.

Please quote reference 929.

School of Business and Social Sciences

Lecturer II/Senior Lecturer Posts
Salary range £7,812–£12,363/£11,439–£14,325.

It is hoped that all these appointments can be filled from 1 September 1985.

Accounting

Applicants must have a relevant degree, post-graduate degree/or professional qualification and be willing to teach on a wide range of courses and conduct research and consultancy. Expertise is particularly sought in Management Information Systems, Financial Accounting Systems, Auditing, Taxation and Managerial Accounting.

Please quote reference 921.

Further information available from R J Ryan, Head of Accounting Academic Group, telephone Hertford 558451.

Economics

Applications are sought from well qualified and experienced teachers in Economics who are able to contribute to a wide range of teaching. Applicants must demonstrate an active interest in research but no particular subject specialism is sought.

Please quote reference 922.

Further information available from J C Adams, Head of Economics Academic Group, telephone Hertford 558451.

Law

Applications are sought from well qualified lawyers with either a higher degree, professional qualification, previous teaching experience, or appropriate previous employment. Candidates should be particularly interested in teaching and research in an area of Business Law.

Please quote reference 923.

Further information available from P W Parry Head of Law Academic Group, telephone Hertford 558451.

Social Work

Applications should be graduates experienced in Social Work and have experience and interest in either Community Social Work or group work in a Residential/Day Care setting.

Please quote reference 924.

Further information available from R C Parker, Head of Social Work Academic Group, telephone Hertford 558451.

Application forms and further details from the Staffing Office, The Hatfield Polytechnic, PO Box 109, Hatfield, Herts, AL10 9AB, or telephone Hatfield (07072) 79802.

Closing date for completed application forms: 3 June 1985. (70660)

NEWCASTLE UPON TYNE POLYTECHNIC

ASSISTANT DIRECTOR (ACADEMIC)

The Polytechnic Governors are seeking to make appointment to the above post within a restructured Directorate following a staff retirement.

The post will assist generally in the management of the academic affairs and will be particularly concerned with the promotion and maintenance of research and consultancy and the furtherance of external relations and services.

Salary: £24,348 in Burnham Vice Principal Group 12 range (salary award pending).

Further particulars and application form from: The Chief Administrative Officer, Newcastle upon Tyne Polytechnic, Ellison Building, Ellison Place, Newcastle upon Tyne NE1 8ST to whom completed applications should be returned by 12 June 1985.

NEWCASTLE UPON TYNE POLYTECHNIC

THE POLYTECHNIC OF WALES POLITECHNIG CYMRU
Department of Management and Legal Studies

LECTURER GRADE II/ SENIOR LECTURER

Required to teach on a variety of postgraduate and post experience programmes, primarily in the functional areas of Health Care.

The successful candidate is likely to have both theoretical and practical experience in the application of computer systems within the public sector.

Salary: £7,548–£14,061 per annum inclusive (award pending).

Further details and application forms may be obtained from: The Personnel Office, Polytechnic of Wales, Pontypridd, Mid Glam CF37 1DL. Tel (0443) 405133 ext 2021.

Closing date: 3 June 1985. (020214)

TEESSIDE POLYTECHNIC
Computer Centre

PROJECT MANAGER
Post Reference Number: P.CU.08
READVERTISEMENT

Grade: PO3
Salary: £11,259 – £12,243

A Project Manager is required to head the Information and User Support Group of the Computer Centre. The Centre is equipped with a mainframe of 6 Prime computers and serves a user population of over 2000 staff and students. This is a middle management position in one of the leading Computer Centres in the educational field.

An Equal Opportunity Employer.

Application form and further particulars from The Personnel Section, Teesside Polytechnic, Borough Road, Middlesbrough, Cleveland TS1 3BA, Tel: Middlesbrough (0642) 218121, Extension 4114.

Closing date for applications: 24 May, 1985 (70678)

The POLYTECHNIC WOLVERHAMPTON

Applications are invited for the following posts in the School of Computing and Information Technology:

Lecturer II/Senior Lecturer in Computing
Temporary Lecturer II in Computing
Temporary Demonstrator in Computing
Lecturer II/Senior Lecturer in Mathematics/Statistics
Temporary Lecturer II in Mathematics/Statistics
Researcher A in Computing

Salary Scales:

Researcher A	–	£5,810 – £6,405
Demonstrator	–	£5,810 – £10,812
Lecturer II	–	£7,548 – £12,099
Senior Lecturer	–	£11,175 – £14,061

Further details and application form from the Staffing Office, The Polytechnic Wolverhampton WC1 1SB or telephone Wolverhampton (0902) 710664 (ansaphone).

(020220)

HUDDERSFIELD POLYTECHNIC
Computer Studies and Mathematics

Lecturer II/Senior Lecturer in Quantitive Methods
RE: ACA577

Candidates for this permanent post should have a good honours degree in Mathematics/Statistics, and a background of research or business/industrial experience. They will be expected to contribute to the Department's Computing degree and diploma courses, to its service teaching which extends over a wide range of courses across the Polytechnic, and to appropriate research programmes.

Salary: LII £7,548 – £12,099
SL £11,175 – £13,128 (Bar) – £14,061

Application forms (to be returned by 3 June 1985) & further particulars from the Personnel Office, The Polytechnic, Queensgate, Huddersfield HD1 3DH. Please send SAE. (70676)

Middlesex Polytechnic

PART-TIME LECTURERS IN MODERN LANGUAGES

Graduate teachers of proven ability are required for part-time teaching from September 1985:

German Language (with expertise in communicative language teaching) for the intensive ab initio course on the Diploma of Higher Education.

French Language on the B.A. Honours in European Business Administration. A native speaker is essential, preferably with expertise in business and related areas.

French Language on the B.A. Honours in Humanities.

Write with c.v. and the names of two referees to: The Head of the School of Modern Languages, Middlesex Polytechnic, All Saints Site, Mill Lane, London NW7 2AT, by date 28 May. (50343) H5

Newcastle upon Tyne Polytechnic
Faculty of Humanities
School of English and History

LECTURER II IN MODERN HISTORY

Burnham FE: LII £7,548 - £12,099

Ref: AS4/85

Candidates should have a good first degree as well as successful research and teaching experience. Post tenable from 1.9.85.

For further details and application form please call our 24 hour telephone answering service (0632 383190) or write enclosing a foolscap sae to Mrs Linda Morris, Admin. Asst. (Recruitment) Newcastle upon Tyne Polytechnic, Ellison Building, Ellison Place, Newcastle upon Tyne NE1 8ST, to whom completed forms should be returned quoting the ref. by 27.5.85. (50353) H5

City of Birmingham Polytechnic
An equal opportunities employer

Faculty of Art & Design

Department of Art

History of Design

SENIOR LECTURER/ LECTURER II (2 POSTS)
(Half or Full-time)

Post 1. History of Three Dimensional Design.

Post 2. History of Graphic Design.

Applications are invited for the above posts for the period 1st September, 1985 until 30th March, 1986, from candidates qualified in History of Art and Design with teaching experience to teach to NAD level. (Cover for maternity leave).

Salary, Lecturer II £7,548 - £13,095 pro rata, Senior Lecturer £11,175 - £15,186 (bar) £14,061 pro rata.

Further details and application forms from: The Personnel Officer, City of Birmingham Polytechnic, 4th Floor, Perry Barr, Birmingham B42 2SU. Tel: 021-356 5185, Ext. 515/516. Closing date: 14 June. (50364) H3

Bristol Polytechnic
Science Department

PRINCIPAL LECTURER IN ANALYTICAL SCIENCE
Ref No L/13

Applications are invited for this new post within the Department. The successful candidate will be expected to take responsibility for the co-ordination and development of teaching within the field of analytical science and instrumentation across the biological and physical science courses in the department. High academic qualifications and substantial research and/or industrial experience are sought rather than any one particular discipline. An ability to initiate and pursue research and/or consultancy in some aspect of instrumental analysis is essential.

Salary Scale: £13,095 - £14,580 (bar) to £16,467 per annum.

For further details and an application form please be returned by 28th May, 1985 please contact the Personnel Office, Bristol Polytechnic, Coldharbour Lane, Frenchay, Bristol or ring Bristol 656261, Ext. 215 or 217.

Please quote Reference Number L/13 in all communications. (020171) H5

DUNDEE COLLEGE OF TECHNOLOGY
Department of Electrical & Electronic Engineering

SENIOR LECTURESHIP IN DIGITAL SYSTEMS

Applicants should possess a good honours degree in electrical and/or electronic engineering or related discipline, and preferably a higher degree, together with relevant industrial and/or research experience.

The person appointed will be required to teach on a range of first degree and other courses in which he will be expected to lead the development of the subject or digital systems at both undergraduate and postgraduate levels, which is likely to include the development of hardware and software relating to computer-aided engineering.

He will also be expected to undertake research.

Salary (currently under review): £12,777–£14,184 (bar) – £16,104, with initial allowance for approved previous experience. Financial assistance towards relocation expenses may be payable.

Application and application form are obtainable from the Personnel Officer, Dundee Institute of Technology, Dundee DD1 1HG with whom applications should be lodged by 24 May 1985. (70664)

Polytechnics continued

City Polytechnic of Hong Kong

HEADSHIP

Electronic Engineering Department

The post of Head of the Department of Electronic Engineering will become vacant in August 1985. Applications are invited from suitably qualified and experienced candidates for appointment of the post.

The Department is part of the planned rapid expansion of the Polytechnic, established by the Hong Kong Government in January 1984 to offer courses which are modular in structure and which are intended to have a strong vocational flavour. The Department is scheduled to offer full-time and part-time evening courses from October 1985 leading to the award of Professional Diploma and Higher Diploma. A Degree course is also being planned to commence in 1986.

Qualifications for Appointment: Candidates should have a relevant academic/professional qualification, substantial administrative and teaching experience in higher education at a senior level, and preferably extensive professional/commercial/industrial/managerial experience at a senior level. Preference will be given to candidates possessing a higher degree and with experience in the operation of modular course structures, as well as a proven record of personal research.

Salary and Terms and Conditions of Service: The salary is within a range but not less than HK$25,100.00 per month (£1 = HK$9.17 on 6/2/85).

The initial appointment will be made on a fixed-term contract of four years, at the end of which a gratuity equal to 25% of salary earned over the whole contract period will be payable. Benefits include long leave, subsidised housing, medical and dental benefits, children's education allowances and leave passages.

Application forms and further information obtainable from the Secretary General, Association of Commonwealth Universities (Appts), 36 Gordon Square, London WC1H 0PF. Completed forms should reach the General Secretary, City Polytechnic of Hong Kong, PO Box 98441, Tsim Sha Tsui Post Office, Kowloon, Hong Kong, by 12 June 1985; an additional copy should be lodged with the Association of Commonwealth Universities. (50343) H3

Bristol Polytechnic

Humanities Department

LECTURER II/ SENIOR LECTURER IN ENGLISH STUDIES

Applications are invited for the above post, entailing teaching at Honours Degree level on the B.A. Humanities and B.Ed. degree courses. The main emphasis in both degrees is on 19th and 20th century English Literature, with elements of American and European literature. Candidates should possess a good Honours degree and have appropriate teaching and research experience.

Salary Scale: L.II £7,548 - £11,175 (bar) - £12,099 per annum, SL £11,175 - £13,128 (bar) - £14,061 per annum. The appointment will be made on the appropriate scale according to relevant previous service/experience. (Progression from the LII scale to the SL scale is in accordance with the provisions of the Burnham Further Education Report).

For further details and an application form, to be returned by 31 May 1985, please contact the Personnel Office, Bristol Polytechnic, Coldharbour Lane, Frenchay, Bristol or ring Bristol 656261, Ext. 216 or 217.

Please quote Reference Number L/34 in all communications.

Avon County Council is an equal opportunities employer. (50342) H3

Bristol Polytechnic

Design Department

ASSOCIATE LECTURER II/ SENIOR LECTURER (0.5)

School of Fashion Design (B.A. Hons. 5 year course) is looking for a young professional designer, with freelance commitments, to teach design. Practical industrial experience, and the ability to teach all aspects of fashions design (womenswear, menswear, accessories etc) is essential. Teaching experience would be a valuable asset.

The appointee will be required to share pastoral and administrative duties and will be expected to devise a wide range of projects. The appointee will be expected to carry some projects through to garment production and must, therefore, have patternmaking and making skills.

The person appointed may be offered some initial teaching responsibility on the course this summer.

The appointee is due to commence on 1 September 1985 and terminate on 31 August 1985.

Salary Scale: LII 50% of £7,548 - £11,175 (bar) - £12,099 per annum, SL 50% of £11,175 - £13,128 (bar) - £14,061 per annum.

The appointment will be made on the appropriate scale according to relevant previous service/experience. (Progression from the LII scale to the SL scale is in accordance with the provisions of the Burnham Further Education Report).

For further details and application form, to be returned by 31 May 1985, please contact the Personnel Office, Bristol Polytechnic, Coldharbour Lane, Frenchay, Bristol or ring Bristol 656261, Ext. 216 or 217.

Please quote Reference Number L/35 in all communications.

Avon County Council is an equal opportunities employer. (50344) H3

Leicester Polytechnic

School of Mechanical and Production Engineering

Applications are invited for the following posts:

1) LECTURER II IN PRODUCTION ENGINEERING
Post No 450

2) LECTURER II IN ENGINEERING DESIGN
Post No 458

Applicants, who should hold an honours degree in Engineering, should have an interest in and preferably some experience in, computer integrated manufacture and will be expected to make a contribution in the field of developing teaching and research areas in this field.

Salary in range £7,548-£12,099 p.a. (Pay Award Pending).

Further particulars and application forms may be obtained from the Personnel Officer, Leicester Polytechnic, PO Box 143, Leicester LE1 9BH. Tel: (0533) 551551 ext 2503.

(Applications must be lodged by 31 May 1985). (50339) H3

Brighton Polytechnic

Department of Electrical Electronic Engineering

LECTURER II/ SENIOR LECTURER
(Two Posts)

Applications are invited for two lecturing posts in the areas of Computing Engineering, Communication Engineering (particularly digital communications) or Digital Electronics. Candidates should have a good honours degree although preference may be given to those holding a higher degree. Appropriate industrial and/or teaching experience would also be an advantage.

The successful candidates will be joining the staff of a well established and energetic department. All of the courses are at degree or postgraduate level. The ability to teach on any course would be expected together with the ability to initiate and pursue research and consultancy work.

Salary: Senior Lecturer - £11,175 - £14,061; Lecturer II - £7,548 - £12,099.

Application forms and further details from the Personnel Department, Brighton Polytechnic, Moulsecoomb, Brighton, BN2 4AT. Tel: (0273) 693655. Ext. 3557. Closing date May 24. (50338) H3

Kingston Polytechnic

Faculty of Science

TEMPORARY LECTURESHIP IN ORGANIC CHEMISTRY

Applications are invited for a post tenable for one year from 1st September 1985. The main responsibility will be to teach organic chemistry to degree and higher diploma students. An ability to contribute to the teaching of general industrial chemistry would be an added advantage.

Salary Lecturer II: £8,295 - £12,777 including London allowance.

Further details and application forms (to be returned by 31st May) from Personnel Officer, Kingston Polytechnic, Penrhyn Road, Kingston upon Thames KT1 2EE. Tel: 01-549 1366. Ext. 287. (50321) H3

Leicester Polytechnic

School of Industrial Design

PRINCIPAL LECTURER IN INTERIOR DESIGN
Post No. 213

£13,095–£14,580 (bar) – £16,467 p.a. (Pay Award Pending)

Applications are invited from suitably qualified Chartered Surveyors currently in practice or education to teach Interior Design and Development in the School of Design. Teaching experience is not essential but candidates must be able to demonstrate a thorough knowledge of practices and techniques. It is anticipated that the appointment will be at Senior Lecturer level.

Salary range £7,548–£14,061 per annum (under review).

LECTURER II IN ENVIRONMENTAL SCIENCE
Post No. 377

Applications are invited for the above post from either a post graduate in an appropriate discipline whose interests and experience are associated with the built environment or a professionally qualified Architect, Engineer or Surveyor with teaching and or research experience in environmental science.

Salary range £7,548–£12,099 per annum (under review).

Further details and application forms available from the Personnel Office, Leicester Polytechnic, P.O. Box 143, Leicester LE1 9BH. Tel: Leicester (0533) 551551. Ext. 2303.

Potential applicants wishing to informally discuss the appointments can ring Professor David Chisholm on Leicester 551551. Ext. 3504.

Closing date: 6th June, 1985. (50351) H3

Sunderland Polytechnic

Faculty of Art and Design

Department of Applied Studies

PRINCIPAL LECTURER IN 3-D DESIGN (GLASS WITH CERAMICS)

Salary £13,095–£14,580 Bar £16,467 (under review)

The Polytechnic seeks to appoint an academic leader with a proven record in teaching, research and/or consultancy and a commitment to the development of higher education and research in Three-Dimensional Design. The successful candidate will be expected to take up the post of Course Leader for the B.A. (Hons) 3-D Design (Glass with Ceramics) in September 1985.

An application form and Note of Guidance may be obtained from the Personnel Officer, Sunderland Polytechnic, Langham Tower, Ashburne Road, Sunderland SR2 7BP (Quote Ref. 10/82). (50323) H3

Closing date: 31 May 1985

Leicester Polytechnic

School of Industrial Design

PRINCIPAL LECTURER

Required as Course Leader Post No. 536

MA Degree INDUSTRIAL DESIGN (ENG.)

Applications are invited from those with proven record of success in subject.

Salary: £13,095–£16,467 (under review).

Application forms from: Personnel Officer, Leicester Polytechnic, PO Box 143, Leicester LE1 9BH. Tel: Leicester 551551 ext 2503.

Closing date: 31 May 1985. (50322) H3

North Staffordshire Polytechnic

Department of International Relations and Politics

TEMPORARY LECTURER II IN PUBLIC ADMINISTRATION

£7,548–£9,348 (pay award pending)

Applications are invited for a temporary appointment from 1st September 1985 to 30th June 1987 (with possible extension). Applications are particularly invited from candidates with interests in local government and the public policy of sport and recreation.

Application form and further particulars may be obtained from the Personnel Section, North Staffordshire Polytechnic, College Road, Stoke on Trent ST4 2DE. Telephone (0782) 553531 ext. 211.

Closing date for completed applications Monday, 3rd June 1985. (50360) H3.

City of London Polytechnic

Department of Banking and Insurance

SENIOR LECTURER IN BANKING

Applications are invited for the post of Senior Lecturer in Banking, tenable from September 1985.

The main requirement is for a person with senior academic qualifications and good banking experience with expertise in the field of financial and risk management within the banking sector.

Salary on a scale £12,213 p.a. to £14,166 p.a. (bar) - £15,099 including London Weighting.

For further details and an application form please write on a postcard to the Staff Records Officer, City of London Polytechnic, 117 Houndsditch, London EC3A 7BU. Please quote reference no. 85/31. (50356) H3

Middlesex Polytechnic

PART-TIME LECTURER IN EDUCATION

To train intending primary school teachers taking Environmental Studies on the polytechnic's B.Ed. Honours. Responsibilities include lectures/practical work for three hours a week (Friday), commencing September 1985.

Recent experience of primary school teaching is expected, with particular expertise in history/environmental studies.

Please write with full c.v. to: The Dean, Faculty of Education and Performing Arts, Middlesex Polytechnic, Trent Park, Cockfosters Road, Barnet, Herts. EN4 0PT. (50344) H3

Lothian Regional Council

Department of Education

Napier College of Commerce and Technology

Napier College is to be designated a Scottish Central Institution on 1 September 1985.

SENIOR LECTURER 'A' ACCOUNTING

Salary on scale £12,777 - £14,184 Bar - £16,104

The successful candidate will hold a Professional qualification or an appropriate qualification and should preferably have some post-qualifying experience, preferably in the fields of Auditing or Taxation or Internal Auditing. A knowledge of computers and some experience in Industry may be an advantage.

The appointee will be required to teach to Degree, Post-Graduate and Final Professional levels.

LECTURER 'A' ACCOUNTING

Salary on scale £8,589 - £12,777 Bar - £13,716

Applicants for this post must hold a Professional qualification or an appropriate Degree and have, preferably, some teaching/professional/industrial experience.

The successful candidate will be expected to teach financial accounting, management accounting, taxation and auditing, as required, to final professional and/or degree level.

Application forms and further particulars from: Administrative Officer (Personnel), Napier College, 219 Colinton Road, Edinburgh EH14 1DJ. Tel: (031) 454 7070. Ext. 266. (50378) H7

Personal

IMMEDIATE ADVANCES £100 to £500. No written terms on request. Regional offices nationwide. Pinchin Johnson, 11 Dover Street, Piccadilly, London W1. Phone 01-491 2034 or 499 8416 L000

LOANS TO SALARIED WOMEN from £50 charged same day. Salaried Women's Loans, Dept. TES, 1 Bond Street, Bath. Closing date 31st May 1985. (50179) H7

Colleges and Institutes of Higher Education

WEST GLAMORGAN INSTITUTE OF HIGHER EDUCATION, SWANSEA

Applications are invited for the following academic vacancies:

FACULTY OF BUSINESS ADMINISTRATION

HEAD OF SCHOOL OF BUSINESS (PRINCIPAL LECTURER)
Candidates should be graduates in Business Studies or a relevant discipline. The successful applicant should possess a higher degree and relevant commercial or industrial experience. Teaching at HND undergraduate and postgraduate level would be an advantage as well as a knowledge of BTEC and CNAA. Applications from specialists in Marketing, Finance or Business Technology would be particularly welcome.
The successful applicant will be expected to contribute to the Institute's research programme.

SENIOR LECTURER IN BUSINESS STUDIES
Applicants should be graduates specialising in one or more of the following fields: Marketing; Tourism; Recreation or European Studies. The Institute is seeking a person with good industrial or commercial experience and teaching on advanced courses, would be an advantage.
The successful applicant would be expected to contribute to new course developments and research.

LECTURER I SECRETARIAL STUDIES (OFFICE SYSTEM)
Candidates should be graduates with good commercial or industrial experience in the application of Business Information Technology within the Office. Applicants would be expected to teach on a range of courses and contribute to the following areas: Office Systems; Keyboard Skills; Word Processing and Information Processing.

FACULTY OF ELECTRONIC ENGINEERING
HEAD OF SCHOOL OF ELECTRONICS (PRINCIPAL LECTURER)
Applicants should be graduates who possess a higher degree in Electrical Engineering or Electronics. The successful candidate should have a good industrial background and teaching experience within higher education. Knowledge of BTEC and CNAA would be particularly useful as well as an understanding of the MSC. An interest in research would be a necessary feature of the person appointed.

SENIOR LECTURER IN COMPUTER AIDED ENGINEERING/DESIGN AUTOMATION
Applicants should be graduates who possess a higher degree with good industrial background. Experience of research and of development projects in the Electronics/Computer Technology Industry would be advantageous. A knowledge of BTEC and of CNAA would be beneficial. The person appointed would be expected to contribute to Computer Aided Design courses, and to the teaching of advanced manufacturing technologies.

SENIOR LECTURER IN COMMUNICATIONS ENGINEERING
Applicants should possess a higher qualification and be able to contribute to the teaching of Telecommunications; Digital Data Transmission; Satellite Communications and Computer Technology. Experience of teaching in higher education would be an advantage as well as a research background. The successful candidate will be expected to contribute to the development of a B.Eng. degree.

SENIOR LECTURER IN MICROELECTRONICS (2 POSTS)
Candidates should be graduates specialising in Electronics and Microelectronic Systems. The possession of a higher degree would be an advantage. The successful applicant should have industrial or postgraduate research experience. Teaching experience and a knowledge of CNAA and BTEC would be beneficial.

Salary Scales
Principal Lecturer £13,095-£14,467 (under review)
Senior Lecturer £11,175-£13,128 Bar-£14,061 (under review)
Lecturer I £5,910-£10,512 (under review)

For further details and application form please write enclosing a stamped addressed envelope to The Principal, West Glamorgan Institute of Higher Education, Townhill Road, Swansea SA2 OUT.
Closing date: 29th May 1985. (70695)

Ealing College of Higher Education

LECTURER II/SENIOR LECTURER IN JAPANESE
School of Business & Management
(3 year fixed term contract)

Required for 1st September or as soon as possible thereafter to prepare and subsequently teach the proposed Japanese Applied Language Option on the industry-based BA (Hons) Sandwich Degree in Business Studies. Additional duties will involve liaison with industry and short course provision in Japanese language. Familiarity with techniques of language teaching within a business context is essential. The ability to offer Chinese (Mandarin) would be an advantage.

LECTURER I/II IN CHINESE
School of Language Studies
(1 year temporary post)

Required for 1st September to teach on the intensive one year Diploma in modern Chinese (Mandarin). Candidates should be convenient with techniques for teaching reading and translating skills and should be able to work closely with colleagues in a small teaching team. The ability to offer Japanese would be an additional advantage.

Salary: LI £6548 – £11550 pa
LII £6548 – £13157 pa
SL £12213 to a possible maximum of £15099 pa
Inclusive of London weighting

Application forms and further details from The Staffing Officer, Ealing College of Higher Education, St Mary's Road, Ealing, London W5 5RF

Closing date: 31st May 1985. (70696)

Colleges of Higher Education continued

the College of Ripon & York St John

Applications are invited for the following posts in this Church of England Voluntary College of Higher Education (1,800 men and women). The appointments will be at appropriate points on the Lecturer Grade II/Senior Lecturer scales (£7,548–£14,061).

MATHEMATICS AND MATHEMATICAL EDUCATION
Required for September 1985 or as soon thereafter as possible, a well qualified mathematician with school teaching experience, preferably at primary school level. The person appointed must have the ability to contribute to initial teacher training (B.Ed. and P.G.C.E.), to in-service work for teachers and also to academic courses in mathematics.

PRIMARY EDUCATION
Required for September 1985 or as soon thereafter as possible, a practising primary teacher with graduate or equivalent qualifications. Knowledge of language and drama within primary education is essential: experience within the 5 to 9 age range and an interest in research would be an advantage.

PSYCHOLOGY
Required for January 1986, a well qualified Psychologist with a C.G.S.W. to teach general psychology and social policy. Relevant teaching experience in Higher Education is essential as the successful candidate will be expected to teach in both B.A. and B.Ed. degree programmes.

SOCIOLOGY
Required for January 1986, a well qualified Sociologist to teach general sociology and the Sociology of Education. Preference will be given to candidates with a special interest in Women's Studies. Relevant teaching experience in Higher Education is essential as the successful candidate will be expected to teach in both B.A. and B.Ed. degree programmes.

Further details and application forms may be obtained from the Principal, College of Ripon and York St. John, Lord Mayor's Walk, York YO3 7EX, to whom completed forms should be returned to arrive not later than *MONDAY 10th June 1985.*

(020016)

DERBYSHIRE COLLEGE OF HIGHER EDUCATION

Registry Officer
(Examinations, Records & Statistics)

Salary SO2 – £10,404-£11,025

Application forms and further particulars from Staffing Officer, Derbyshire College of Higher Education, Kedleston Road, Derby DE3 1GB, telephone Derby 47181, extension 8.

(70691)

Ealing College of Higher Education

RESEARCH ASSISTANTS

1) Marketing Management Information Systems

Required as soon as possible, to work on an ESRC funded project to evaluate current company practice with information to marketing management information systems, to assess the ability to arrange and carry out research with marketing managers is required. Some familiarity with both marketing and information technology would be an advantage.

The appointment is for 14 weeks to start as soon as possible.

2) Classroom Acquisition of Foreign/Second Languages in Higher Education

The successful candidate should have a sound knowledge in Spanish and German and preferably be familiar with second language acquisition research.

The post is tenable from 1st September 1985 to 31st August 1986.

Salary £7,191 p.a. inclusive of London Weighting.

Application forms and further details from the Staffing Officer, Ealing College of Higher Education, St Mary's Road, Ealing, London W5 5RF.

Closing date: 29th May 1985. (50365) H3

PLEASE MENTION THE T.H.E.S. when replying to advertisements

Hampshire County Council

SOUTHAMPTON INSTITUTE OF HIGHER EDUCATION
Advertisement and Regrading of Post

DEAN OF FACULTY OF ART AND DESIGN

Salary Scale: Head of Department V plus Faculty Allowance £16,095–£17,877 plus £1,176

Applications are invited for the above post. Previous applicants need not reapply as they will automatically be considered.

SENIOR LECTURER IN FASHION

Salary Scale: £11,175–£14,061 (Bar Point £13,128)

To teach on the BTEC HND Fashion Course. Applicants must have relevant industrial experience and contacts and, preferably, teaching and organising experience.

Application forms and further details available from The Personnel Officer, Southampton Institute of Higher Education, East Park Terrace, Southampton. Tel: Southampton (0703) 229381 Ext. 312.

Closing date: 29 May, 1985.

(70688)

WEST GLAMORGAN INSTITUTE OF HIGHER EDUCATION, SWANSEA

FACULTY OF EDUCATION

SENIOR LECTURESHIP in POST GRADUATE EDUCATIONAL STUDIES

Applications are invited from graduates with three years Primary or Secondary teaching experience who possess a High Degree in Education or a relevant discipline. Preference will be given to candidates with knowledge of Educational Management or Comparative Education or Curriculum Development or other suitable areas.

LII Salary — £10,548-£12,099 (under review).

Application forms and further details from the Principal, West Glamorgan Institute of Higher Education, Townhill Road, Townhill, Swansea, SA2 OUT.

Closing date: 29th May 1985

(70696)

ESSEX INSTITUTE OF HIGHER EDUCATION

SENIOR LECTURER IN NURSING STUDIES

Applicants for the post should be qualified as nurses and be on the professional register of the UKCC. A first degree in social science or nursing is essential, whilst a post-graduate qualification and teaching experience would be an advantage.
The successful applicant will be expected to assume a major responsibility for developing nursing studies. She/he will contribute to the teaching of professional nursing studies but will also be expected to contribute to other courses in one or more of the following areas: management in nursing, health studies, psychology, sociology and research.
Salary: S.L. £11,175-£14,061 (bar at £13,128) per annum.

Application forms and further details available from the Personnel Officer, Essex Institute of Higher Education, Victoria Road South, Chelmsford, CM1 1LL. Telephone Chelmsford (0245) 354491 extension 247. Closing date: 3rd June 1985.

(70694)

ESSEX County Council

Christ Church College of Higher Education

Canterbury

Required for the beginning of the Autumn term 1985:

(1) LECTURER II/SENIOR LECTURER IN BIBLICAL STUDIES

(2) LECTURER II/SENIOR LECTURER IN PHYSICAL GEOGRAPHY, GEOLOGY

The college has over 1,000 students and offers BA, BSc, BEd degrees, and advanced diplomas and higher degrees in Education.

Salary scale: Lecturer II/Senior Lecturer £7,548 - £14,061 p.a.

For further details write to Mrs Jean Lonz, Personnel Assistant to Principal, Christ Church College, Canterbury. Completed applications should reach the Principal within ten days of the appearance of this advertisement (please quote reference A.S. THES). (50368) H3

Bedford College of Higher Education

School of Science and Mathematics

SENIOR LECTURER IN SCIENCE EDUCATION

Required from 1 September 1985 to lead the teaching and development of science education. Science in Primary Education is well established in the B.Ed. (Honours) degree and in in-service courses run in association with the Local Education Authority.

An excellent opportunity for a well-qualified applicant with good teaching and course development experience.

Further details and application forms from The Director, SCHE, Mander Quadrant, Bedford MK40 1SAN (Tel: 0234-51671). Closing date: 7 June 1985. Equal opportunities employer. (50361)

West London Institute of Higher Education

LECTURER

Grade II £7,548 - £12,099 plus £878 O.L.A.

(pay award pending)

Required as soon as possible in the Department of Business and Management Studies to lecture on a variety of Institute courses including a new BTEC Higher Diploma in Computer Studies.

Applicants should be qualified to degree level in Computer Science or a closely related discipline. Relevant experience in any one of the following areas would also be an advantage:-

Computer Programming, Computing Architecture or Information Systems.

Entry point on the salary scale according to qualifications and experience.

Closing date: 31 May 1985.

Application forms and further details are available from The Vice Principal, WLIHE, Lancaster House, Borough Road, Isleworth, Middx. TW7 5DU. Tel: 01-568 8741. Ext. 277. (50355) H3

Colleges of Further Education

ilea colleges

Inner London Education Authority

Principal
NORTH LONDON COLLEGE

Applications are invited for the post of Principal of North London College to commence on 1 January 1986.

The College is in Burnham (Further Education) Group 5 and is organised into five departments:

Engineering & Science, Social Services, Creative Studies, General Studies, and Business Studies.

The main premises are at Camden Road, N7 with branches at Axminster Road, N7 and Essex Road, N1.

The College serves the education and training needs of an inner urban, multi-ethnic area of London, particularly Islington, Hackney and Camden.

Applicants should be well qualified academically and possess a sound knowledge of further education, together with administrative experience at a senior level.

The Principal's salary is £21,489 per annum plus £1,038 London Allowance.

Further information and application forms (to be returned by 31 May 1985) may be obtained from the Education Officer (EO/FHE 4) Inner London Education Authority, Room 257A, The County Hall, London SE1 7PB.

THIS IS A RE-ADVERTISEMENT

ILEA IS AN EQUAL OPPORTUNITIES EMPLOYER (70654)

Somerset County Council

Somerset College of Arts and Technology, Taunton.
DEPARTMENT OF BUSINESS STUDIES (GRADE V)

PRINCIPAL LECTURER IN BUSINESSS STUDIES (Deputy Head of Department)

For September 1985, or as soon as possible thereafter. Applications are invited from appropriately qualified and experienced persons for this important post. The person appointed will play a leading role in the management of the Department and the future development of courses.

Applicants should be able to offer at least one and preferably two of the following subjects:- PUBLIC ADMINISTRATION, MANAGEMENT (including Public Sector, Management) and ACCOUNTING.

A developed interest in the application of Information Technology in business related courses would be avantageous.

Further particulars and application form may be obtained from the Chief Administrative Officer, Somerset College of Arts and Technology, Wellington Road, Taunton TA1 5AX. (SAE please).

Closing date: Monday, 3 June 1985. (17918)

South Glamorgan County Council

SOUTH GLAMORGAN INSTITUTE OF HIGHER EDUCATION, CARDIFF
FACULTY OF SCIENCE
DEPARTMENT OF SCIENCES

LECTURER 2 in Mathematical Education
(Post No. 12/19)

The holder of the post will contribute to the teaching of Mathematical Education in initial and in-service teacher education. Candidates must hold an Honours Degree which includes a major Mathematics component and have substantial, relevant and recent teaching experience in the primary school sector. Some additional expertise in educational computing would be an advantage.

Salary Scale: Lecturer 2 £7,548-£12,099 (Under Review).

Further particulars and application forms may be obtained from The Personnel Officer, South Glamorgan Institute of Higher Education, Cyncoed Centre, Cyncoed Road, Cardiff CF3 6XD (Telephone No. 0222 581111). Completed applications should be returned within fourteen days of the publication of this advertisement.

(70689)

Examiners

RSA Examinations Board
8 John Adam Street, London WC2N 6EZ

CHIEF EXAMINER
required for the new

DIPLOMA IN DRAMA AND THEATRE ARTS
to begin September 1985

We are looking for someone with wide practical experience of drama and theatre arts, who is aware of the background to current educational provision, and supportive of new developments. Above all, we are looking for someone who can communicate enthusiasm for a wide range of work in school, youth service and community.

For further details and an application form please contact Annie Finney on 01-930 8115 or at the above address. Completed forms to be returned by 8 June 1985. (50324) H25

Colleges of Further Education continued

Inner London Education Authority
London College of Printing
Department of Pre-Printing Processes

PRINCIPAL LECTURER GRAPHIC REPRODUCTION

Applications are invited for a Principal Lecturer in Graphic Reproduction.

The person appointed will be required to lead a group of staff, and be responsible to the Head of Department/School, for printing surfaces (relief, gravure and lithography), planning, film assembly and colour montage, screen printing processes and A-level courses related to printing. Also included in the duties of a person appointed are the development of courses, the organisation, supervision, and development of the above area of work, including timetabling, enrolments, the development and updating of syllabuses, recommendations relating to staffing arrangements and the preparation of statistical and other departmental in connection with the implementation of departmental and college policy.

Principal Lecturer : Salary scale in accordance with the Burnham (FE) Report. Salary : £13,098 - £14,380 (bar - £16,467).

SENIOR LECTURER GRAPHIC REPRODUCTION

Applications are invited for the post of Senior Lecturer with special responsibility to the Head of Department/School for the organisation and administration of the Copy Origination/Colour Correction section.

It is preferred that the applicant should have industrial experience and academic knowledge in one or more of the following areas:
Copy Origination.
Colour Correction.

A knowledge of electronic methods of colour correction and copy origination would be an advantage.

Teaching may be at all levels, from Foundation (16 year olds) through to Postgraduate, for between 16-18 hours per week, and may take place at either the Elephant & Castle, or the Clerkenwell site.

Senior Lecturer : Salary scale in accordance with the Burnham (FE) Report. Salary : £11,118 - £12,145 (bar - £13,063) (plus inner London Allowance of £1,393).

Application form returnable 14 days after date of advertisement obtainable from the Senior Administrative Officer, London College of Printing, Elephant & Castle, London SE1 6SB.

Tel: 01-735 8454.

These posts are suitable for job share, applications for a job share appointment will only be considered if submitted on a joint basis.

ILEA is an Equal Opportunities Employer. (50345) H7

Conferences & Seminars

Le Document Authentique

THEORIE ET PRATIQUE

3 journées d'études sur l'exploitation du document authentique dans l'enseignement du français au niveau supérieur auront lieu Froebel Institute College, Roehampton, London 4-6 et 7 Juillet 1985.

Pour tout renseignement s'adresser à Geraldine Hamilton, Service Culturel, Ambassade de France, 22 Wilton Road, London SW1V 1NJ. Tél: 828 1485, Ext. 268. (50346) H24

Holidays and Accommodation

DRISCOLL HOUSE HOTEL. 200 single rooms, £25 per week, per person. Bed & breakfast. 172 New Kent Road, London SE1 4YT. Tel: (01) 703 5431. (50156) H25

DORDOGNE. Pref's, comfortable house (Gaulliage) monthly £350 inc. June, July. Sept. Low long caretaking rent (Winter also). Tuscany house, Perugia (Apennines) Reynaud, Ecole Normale Supérieure, Bizerte, Tunisia. For English information Tel: 01-349 4443. (50314) H25

LUXURIOUS HOLIDAY ACCOMMODATION available in prestigious Georgian building in Edinburgh's West End, but only 5 minute walk to Princes Street. Sleeps 4. Available June onwards. £140 per week inclusive. Availability Jan-Dec 1985. Phone 031-225 5084 (24 hrs). H11

Research & Studentships

THORN EMI and OXFORD UNIVERSITY

TWO FULL-TIME RESEARCH POSTS

Applications are invited for two new posts from physicists, electronic engineers or research workers in related disciplines having a Ph.D. or equivalent research experience.
Those appointed will become staff members of THORN EMI but will be expected to work for three years at least in the Engineering Science Department at Oxford University. Career development opportunities could later exist within THORN EMI.
The successful applicants will be engaged at Oxford in research on Langmuir-Blodgett films and other ventures in Molecular Electronics under the supervision of Professor G. G. Roberts (Chief Scientist, THORN EMI) and Professor E. G. S. Paige.
Salary will be in the range £9,500 to £14,000 plus normal company benefits. Further details may be obtained from Professor E. G. S. Paige, Department of Engineering Science, University of Oxford, Parks Road, Oxford, OX1 3PJ, to whom applications containing a CV and the names of two referees should be sent by June 6th 1985.

POST-GRADUATE SCHOLARSHIPS IN IRELAND

The Irish Government offers two Research Scholarships leading to a PhD (3 years) or Masters degree (1 year) to British graduates who have received a First or Second Class Honours degree and who have obtained a place in an Irish Institution.

Further information and application forms are available from:

The First Secretary (Education), Irish Embassy, 17 Grosvenor Place, London SW1X 7HR.

The closing date for receipt of completed application forms is 24 May 1985. (70104)

HUDDERSFIELD POLYTECHNIC
Dept of Mechanical & Production Engineering

2 RESEARCH STUDENTS IN ENGINEERING

Applications are invited from persons with a good honours degree or equivalent qualification for 2 SERC CASE Research Studentships, under the supervision of Dr R G Mason:

1. 'The Measurement of Rotors for Helical Screw Compressors', in collaboration with Holroyd Machine Tools and Rotors, Rochdale (part of the Ranold Group).
2. 'Advanced Gear Measuring Instruments' in collaboration with Gleason Works Ltd, Plymouth (a subsidiary of Gleason Works, USA).

The successful candidates may be able to register for a higher degree with the Council of National Academic Awards.

Application forms & further information (please state for which project) from the Dean of Research's Office, The Polytechnic, Queensgate, Huddersfield HD1 3DH, tel (0484-22288 ext 2097. Closing Date: 31 May 1985. (70260)

Brunel University
Department of Mathematics and Statistics

RESEARCH STUDENTSHIPS

Applications are invited from good honours (1st or 2i) graduates for the following three SERC/CASE Research Studentships, tenable from 1 October 1985:

(i) Numerical modelling of behaviour of wood, including lecture. (Professor J.R. Whiteman).

(ii) Numerical modelling of vibration effects in underwater vehicles. (Dr. E.H. Twizell and Professor J.R. Whiteman).

(iii) Modelling pack concentration in heavy gas dispersion (Professor F.C. Chatwin).

Applicants for topics (i) and (ii) should have expertise in solid/fluid mechanics and some knowledge of numerical methods. For topic (iii) applicants should have a degree including substantial fluid mechanics.

Details of topics (i) and (ii) can be obtained from Professor Whiteman quoting topic (i) from Professor Twizell.

Applicants should write, stating their qualifications, the number of the topic(s) to which they are applying, to Professor J.R. Whiteman, Brunel University, Department of Mathematics and Statistics, Kingston Lane, Uxbridge, Middlesex UB8 3PH. H11

University of Aberdeen
Department of Environmental and Occupational Medicine

RESEARCH POSTS IN HYPERBARIC PHYSIOLOGY

Two posts are available, initially on a 3 year contract to service a major investigation into hyperbaric oxygen toxicity. The ultimate aim of the project is to investigate mechanisms of increasing oxygen tolerance in man with a view to enhancing dive times and the cost-effectiveness of diving to all depths. Work will involve both animal models and human exposures.

Scientific background is not as important as a research track record with evidence of creativity, although it is anticipated that the successful applicants will be from fields of physiology, pharmacology or biochemistry.

The appointments may be at any level from Post-Doctoral Fellow, Senior Research Fellow, depending on previous experience. The posts are available immediately.

Salary scale for Research and Analogous Staff: Range I1: £7,505 - £13,195; Range I2: £11,405 - £14,895; Range I3: £14,135 - £17,705 (currently under review).

Further particulars and application forms from The Secretary, The University, Aberdeen, with whom applications (2 copies) should be lodged by 31 May 1985. Please quote reference number 2/2/85. (70262) H11

THE TIMES HIGHER EDUCATION SUPPLEMENT 17.5.85

Southampton THE UNIVERSITY
Department of Electrical Engineering

APPLIED ELECTROSTATICS RESEARCH GROUP

Applications are invited for a Research Fellowship for a major new initiative:–

ACID RAIN RESEARCH

Techniques are to be evaluated of electrostatically agglomerating fine particles, leading to more efficient particulate extraction in coal burning furnaces. The research programme is sponsored by the British Technology Group with active collaboration with Lodge Cottrell Dresser and the Coal Research Establishment.

Candidates for this post should preferably possess a Ph.D. in either Electrical Engineering or Chemistry and have some experience in particulate technology and/or surface chemistry.

Salary within scale: £7,520 – £12,150 per annum (under review) with initial placing dependent on qualifications and experience.

Applications (three copies) including detailed curriculum vitae and names of three referees should be sent to Mr D.A.R. Copland, Staffing Department, University of Southampton, Southampton, SO9 5NH, from whom further particulars may be sought and quoting reference number 2143. Alternatively, further details about the post may be sought by contacting directly Dr J.F. Hughes, Department of Electrical Engineering, University of Southampton, Tel: 559122 Ext: 3740. (70246)

University of Warwick
Industrial Relations Research Unit of the School of Industrial and Business Studies

PRINCIPAL RESEARCH FELLOWS SENIOR RESEARCH FELLOWS RESEARCH FELLOWS

Applications are invited for a number of full-time research posts in the Industrial Relations Research Unit, which is supported by the ESRC. The Unit is particularly keen to develop its integrated projects on the industrial relations aspects of the Management of Human Resources, the Management of Productivity, and the Management of Industrial Relations and Small Businesses; but applications in other areas of the Unit's work (described in further particulars) will also be considered. Applicants seeking secondment from existing full-time employment will be particularly welcome.

Applicants should have experience of empirical research in industrial relations or related subjects, and will be expected to produce evidence of ability to write high-quality reports of research material. For the Management of Productivity post, a background in labour economics will be an advantage.

The appointments will be within the Research Range I A (£7,520 - £13,150), Research Range II (£11,505 - £14,895) and Research Range III (£14,135 - £17,705) (under review). Appointment above IA will be offered only to those who can demonstrate ability to work independently and to develop their own research projects; candidates should be prepared to submit proposals for research that they would undertake.

The appointments are for three or four years' duration, in the case of those seeking secondment, two-year appointments will be considered. The starting date will be October 1985 or as soon as possible thereafter.

Those interested in applying are encouraged to contact Professor Keith Ewing, Director of the IRRU, on (0203) 24011, Ext: 3706.

Application forms and further particulars are available from the Registrar, University of Warwick, Coventry CV4 7AL quoting Ref. No. 40/84/85. The closing date for the receipt of applications is 8th June 1985. (55855) H11

University of Warwick
Centre for Research in Ethnic Relations

Applications are invited for two appointments as

RESEARCH FELLOW

in the Centre for Research in Ethnic Relations, tenable from 1st October 1985, in the teams of Ethnicity and Organisation, Ethnicity and Education and Migration and Comparative Issues (Professor R. Cohen). Applicants should have a research degree and substantial research experience, and will be expected to show a strong commitment to team research and the goals of the programme.

Salary in the range £7,520 - £14,380 (under review), depending on the possibility of a higher salary on one of the appointments.

Further particulars from The Registrar, University of Warwick, Coventry CV4 7AL quoting Ref. No. 40/84/85(L). Closing date for applications is 7th June 1985. (70243) H11

Brunel University Uxbridge
Faculty of Social Sciences; Department of Law

ESRC CASS STUDENTSHIP

Applications are invited for an ESRC CASS award for research into the Impact of the 'Tenant's Charter' on Local Authorities and Council Tenant's. The successful candidate will, in collaboration with the Institute of Housing, examine the development of the idea of a 'Tenant's Charter, the translation into legal form in the Housing Act 1980, and its impact, both on public landlords and their tenants.

Applicants should have, or be anticipating the award of a first or upper second class honours degree, or a master's degree, in law or a related field.

Further particulars and an application form (which must be returned not later than 6 June) are available from Professor M. Partington, Department of Law, Brunel University, Uxbridge UB8 3PH (Tel: 0895 56461 Ext. 2747).

The starting date of the studentship is 1 October 1985. (50369) H11

The University of Leeds
School of Education

PART-TIME PREDOCTORAL RESEARCH ASSISTANT

Applications are invited for the above post to work on a Survey of Education and Occupation involving the use of indicators and interview techniques. A good honours degree in Social Science is required. The post will be available from 1 October 1985 for a fixed term of one year and an appointment will be made on a 75% of full-time basis.

Salary will be on the II Range of the salary scale for Research and Analogous Staff (£6,600 - £8,980) (under review) according to age, qualifications and experience.

Informal enquiries may be made to Mr M.J. Raffe, Dr I. Reid or Mr K.P. Williams (Tel: 0532 431751, Ext. 6154, 7255 or 6588).

Application forms and further particulars may be obtained from the Registrar, The University, Leeds LS2 9JT quoting reference 38/79. Closing date for applications 31 May 1985. (50315) H11

University of Dundee
Department of Mathematical Sciences

RESEARCH STUDENTSHIP IN MATHEMATICAL BIOLOGY

Applications are invited for an S.E.R.C. supported Research Studentship in Mathematical Biology leading to the Ph.D. degree and commencing on 1st October 1985.

The research will be concerned with the study of deterministic mathematical models arising in neurophysiology and population genetics under the supervision of Professor B.D. Sleeman.

Candidates should have or expect to obtain a first or good second class honours degree in mathematics.

Applications as soon as possible to Professor D.S. Jones, F.R.S., Department of Mathematical Sciences, The University, Dundee, Dundee DD1 4HN, from whom further particulars may be obtained. (50377) H11

Luton College of Higher Education

RESEARCH STUDENTSHIP

'Why Women do not learn in the New Technologies'.

Applications are invited from candidates with a good honours degree in the Social Sciences or Education for research into this topic. The three-year research studentship is funded by the Manpower Services Commission and the successful applicant will be expected to register with the Open University for a Ph.D. degree as a part-time external student, supervised both by the O.U. and a supervisory team at LCHE.

The research grant is £9,585 p.a. (under review). The appointment will be made from September 1st 1985 or earlier.

Curriculum vitae, together with a brief statement of interest in the topic and the name and address of two referees should be sent to Nick Wallace, Principal, Luton College of Higher Education, Park Square, Luton LU1 2TY (quoting 3411). Tel. 0582 451811 (Further particulars are available.

Redundancies are anticipated [illegible]

Research and Studentships continued

OXFORD POLYTECHNIC
Solar Energy Studies

SERC CASE STUDENTSHIPS

Applications are invited for:

1. A three year Studentship with registration for the degree of PhD in collaboration with Inco Selective Surfaces Ltd, Birmingham. The study is concerned with the preparation and properties of transparent heat mirror films and electrochromic materials for use in energy efficient windows.
2. A one year Studentship with initial registration for the degree of MPhil in collaboration with Applied Photophysics Ltd, London. The study is concerned with the design and development of a portable integrating sphere reflectometer for measurement of the optical properties of materials used in solar collectors.

Candidates for both posts should hold, or expect to hold, a first or upper second class honours degree in physics, chemistry, materials science, electronics or engineering.

Completed applications, including a curriculum vitae and the names and addresses of two referees should be submitted to Dr M G Hutchins, Department of Geology and Physical Sciences, Headington, Oxford OX3 0BP by 13th June 1985.

Further particulars are available on request (Tel. 0865 64777 ext 447). (020212)

UNIVERSITY OF BRADFORD.

RESEARCH ASSISTANTSHIPS

(2 fixed-term posts).

CRIME AND THE CRIMINAL JUSTICE SYSTEM.

Applications are invited for the above posts which are of two years duration from 1st November 1985 on an ESRC funded project entitled "Crime, Community and the Inter-Agency Dimension." Research will be concerned with the work of the police, probation and social services departments in relation to local needs and problems. One Assistant will be based in London, the other in Blackburn. The project will be directed by Mr G Pearson, University of Bradford, Mr H Blagg and Mr D Smith, University of Lancaster with the assistance of Mr J Friend, Tavistock Institute of Human Relations. In addition to sound academic qualifications applicants should have some working knowledge of the criminal justice system. Commencing salary in range £6,600 – £7,980 p.a. Superannuable.

Application forms and further particulars from the Deputy Secretary, (Ref: RA/A88/P2/TH), University of Bradford, West Yorkshire, BD7 1DP. Closing date 31 May, 1985. (70574)

Manchester Polytechnic

NAB RESEARCH POSTS

As a result of its successful bid to the NAB for selective research funding, the polytechnic now has research posts available for work in the following areas:

Diffusion and chemical studies of the thermal and photochemical degradation and stabilisation of polyethylene for use in large diameter pressure pipes (7/714).

Computer-aided simulation and modelling of digital magnetic recording and replay processes (7/715).

Development of digital magnetic recording systems employing novel high-density recording techniques and new types of magnetic media (7/716).

Application of fast-atom bombardment mass spectrometry to the structural investigation of biological macromolecules of clinical importance (7/717).

Growth and stability of mutant and bacterial cells in the large-scale culture of hybridomas secreting monoclonal antibodies and/or natural and constructed plasmids (7/718).

Development of fluidised bed fermenters for the efficient biotechnological production of industrially important products from immobilised microorganisms (7/719).

Multivariate mathematical modelling of complex karst (limestone) water systems (7/720).

Study of palaeoenvironments by time-series discriminant dating of the foraminifera (7/721).

Applicants should possess or expect to obtain a good honours degree or an equivalent qualification in a relevant subject.

Appointments will normally be made to Research Assistantship posts (salary range £4,597), and will permit registration for a higher degree. In appropriate cases, however, a Research Fellowship may be offered at a higher salary.

For further particulars and an application form (returnable by 7 June 1985) send to SAE to The Secretary, Manchester Polytechnic, Manchester M15 6BX quoting the reference number(s) which are of interest. Informal enquiries may be directed to the first instance to Dr P.J. Robinson, Tel: 061-228 6171, Ext. 3307.

At Manchester Polytechnic is an equal opportunities employer. (50358) H11

University of Stirling
Department of Business Studies

ESRC STUDENTSHIP

The Institute for Retail Studies invites applications for a studentship, tenable from September 1985, to pursue a doctoral degree (leading to the degree of Ph.D) the subject of which will be determined in liaison with the successful candidate. Applications of graduates in the social, behavioural and technological sciences will also be considered. The studentship will also be associated with the Centre for Retailing Studies.

Applications in writing with CV and the names of two referees should be sent to The Secretary, Institute of Business Studies, University of Stirling, Stirling FK9 4LA, from whom further particulars should be obtained. (50378) H11

Heriot-Watt University
Department of Business Organisation

RESEARCH STUDENTSHIP

Applications are invited for an ESRC Research Studentship. The award has been made by the CASE Scheme and the collaborating body is Marks & Spencer plc.

The research will be in the area of Decision Making in Management Recruitment.

Applicants should have, or expect to obtain a good honours degree in Psychology, Business Studies or a related area.

Applicants should send their C.V. including names of two referees as soon as possible and not later than 31st May, to Dr. Tony Kennan, Department of Business Organisation, Heriot-Watt University, 31-35 Grassmarket, Edinburgh EH1 2HT. (50379) H11

The University of Sheffield

Applications are invited from graduates on any University for:-

A RESEARCH STUDENTSHIP

tenable for two years from 1 October 1985 in the Faculties of Arts or Educational Studies or Social Sciences or Law or Architecture (for work of a non-technical nature). Present value £3,585 plus fees. Candidates graduating in 1985 will be considered.

Applicants for the Studentship must also apply separately for admission to the individual department concerned if they have not already done so.

Particulars and application forms from Personnel Department (Academic Staffing), The University, Sheffield S10 2TN. Closing date Friday 31st May 1985. Quote ref: R2557/DL. (50360) H11

University of Newcastle upon Tyne
Departments of Mechanical Engineering and Engineering Mathematics

RESEARCH ASSOCIATE

Active Hydrodynamic and Squeeze Film Bearings for Vibration Control

Applications are invited for the post of Research Associate to carry out theoretical work on hydrodynamic and squeeze film bearings operating with magnetic and electro-viscous lubricants. The aim of the research is to determine the extent to which the load capacities of the bearings are changed by externally applied magnetic and electrical fields. The feasibility of using the bearing as an active damper for vibration control will also be assessed.

This research is part of an ongoing programme of work on active vibration control which is being supported by the Departments of Mechanical Engineering and Engineering Mathematics.

Applicants should have a good honours or higher degree in physics or mathematics or engineering. Some familiarity with the theory of hydrodynamic lubrication or non-Newtonian fluid mechanics would be an advantage.

The post is funded by the Science and Engineering Research Council and is tenable for 18 months.

Starting salary will be up to £8,920 per annum on the Range IA scale (£7,520 - £13,150) according to age, qualifications and experience.

Applications, which must include a curriculum vitae and the names of three referees, should be sent to Dr. J.S. Burdess, Department of Mechanical Engineering, University of Newcastle upon Tyne, Newcastle upon Tyne NE1 7RU, from whom further details may also be obtained. (50338) H11

University of Newcastle upon Tyne
Department of Law

ESRC LINKED STUDENTSHIP

Applications are invited for an ESRC-Linked Studentship for research into the Role of the Courts in Family Proceedings. The successful candidate will be expected to register for the degree of Ph.D. and the research will be linked to the work of the Conciliation Project Unit established between the Department of Law, Economics and Social Policy. This Unit, funded through the ESRC by the Lord Chancellor's Department, is to investigate the quantitative and qualitative effectiveness of conciliation procedures in matrimonial disputes. Applicants should have, or be anticipating the award of, a first or upper second class honours degree, or a master's degree, in Law or a related field.

Further details and an application form (returnable by 31 May 1985) are available from Dr. Hilary Rodgers, Department of Law, 22-24 Windsor Terrace, The Quadrangle, Tyne NE1 7RU (Tel: 0632 328161 Ext. 3030). The starting date of the Studentship is 1 October 1985. (50356) H11

All advertisements are subject to the conditions of acceptance of Times Newspapers Ltd, copies of which are available on request.

HAMPSHIRE CONSORTIUM FOR ART, DESIGN AND ARCHITECTURE
DESIGN SCHOOL PORTSMOUTH

SENIOR LECTURER/ COURSE LEADER

Required for 1 September 1985.

To be responsible for the Foundation Studies element in B/TEC National Diploma courses and Foundation Studies Pre-Degree. Applicants should possess relevant academic qualifications and have teaching experience in Further and High Education. Applicants with qualifications and/or experience in a design discipline are particularly sought.

Application forms and further particulars from:

The Registrar
Portsmouth College of Art, Design and Further Education
Winston Church Avenue
Portsmouth PO1 2DJ
Tel: (0705) 826435

To be returned fourteen days from the appearance of this advertisement (020213)

Universities continued

London Business School

PUBLIC SECTOR MANAGEMENT

As part of a major initiative in the field of public sector management, the London Business School invites enquiries and applications from academics and practitioners who wish to make a contribution to the development of research and teaching in this area of increasing importance.

The School would like to hear from people who would be interested in the following appointments:

LECTURER (New Blood post)

The person we are looking for will have an academic discipline relevant to management and a major interest in the field of health. Practical management experience would be an advantage. The lecturer will be encouraged to develop research and consultancy as well as teach on the School's programmes.

VISITING LECTURERS

These are available for the academic year 1985/6 for a period of up to one year. Visiting lecturers, who should have a good academic background, will be asked to undertake a limited amount of teaching and to pursue their own research in areas of interest or to contribute to the research activities of the Institute of Public Sector Management.

Both openings are available from September 1985 or as early as possible thereafter and the salary will be in the range £10,155 to £16,158 (including London weighting, excluding the salary award to be agreed from 1st April 1985). Lecturers and Visiting Lecturers will also be able to undertake their own consultancy.

Applications should be made by June 7th to Professor Michael Beesley, Chairman of the Institute of Public Sector Management, London Business School, Sussex Place, Regent's Park, London NW1 4SA.

If you would like to discuss these posts informally, please contact either Michael Beesley, Andrew Likierman or Norman Flynn on 01-262 5050.

Administration

The Royal Society

Applications are invited for the post of

PRIVATE SECRETARY

to the Executive Secretary - Dr P.J. Farnham. Duties will be to provide support for Dr Warren by, inter alia, organising assembly and presentation, preparation of draft letters of papers, the formulation of financial estimates and liaison with staff and Fellows of the Society. The occupant of the post will be responsible for providing administrative support for meetings of the Society's Officers, including minuting the proceedings and ensuring that decisions are implemented. The successful applicant will be personable and find it easy to get on with colleagues at all levels as well as with the Officers, Council and Fellows of the Society and members of the Committees.

The post will be graded Administrative Assistant and be on a salary scale of £7,395 per annum by six steps to £10,155 per annum (including London Allowance), subject to review. Applicants should be between 25 and 30 years of age and have a degree or equivalent qualification preferably in science, mathematics or engineering.

Applications in writing with CV and the names of two referees should be sent to The Secretary, The Royal Society, 6 Carlton House Terrace, London SW1Y 5AG by 24 May 1985. (50309) H16

Colleges and Departments of Art

Kent County Council Maidstone College of Art

HEAD OF DEPARTMENT OF GRAPHIC DESIGN

Burnham Grade IV

Applications are invited for appointment to this important post within the College. The Head of Graphic Design will be responsible for the management of the Department and, in conjunction with the Course Leader, for the conduct of the ONC, B.A. (Hons) course in Graphic Design.

S/he will join the Head of Department of Fine Art and Foundation Studies and other senior members of staff in advising the Principal on the overall management and development of the College and the formulation of its policies.

Application forms and further particulars of the post are available from the Chief Administrative Officer, Maidstone College of Art, Oakwood Park, Maidstone, Kent ME16 8AG (0622 61261). Ext. 2102 (50367) H16

General Vacancies

Department of Education and Science
HM INSPECTORS OF SCHOOLS

Applications are invited from men and women, preferably aged between 35 and 45, for appointment in England as HM Inspectors. HMI inspect educational institutions as part of both general and specialist assignments and provide advice to the Department and throughout the education system.

ENGLISH AS A SECOND LANGUAGE

Applicants will be expected to have had substantial teaching experience and involvement in developing methods and approaches to teaching English as a second language within the school curriculum and in the classroom.

They should also have recent experience of working in this country in or with schools serving multi-ethnic populations.

Starting salary for all posts is within the range £16,200–£21,800 (under review). Relocation expenses of up to £5,000 may be payable.

Application forms (to be returned not later than 31 May 1985) and further information may be obtained from Mr E. D. Foster, Department of Education and Science, 39 York Road, London SE1 7PH. Telephone: 01-934 0798/0799/0800.

The Civil Service is an equal opportunity employer. (70663)

Adult Education

COLEG HARLECH

BURSAR

(Salary £6,600 – £12,150 (under review))

A graduate and/or professionally qualified person is sought for this senior administrative post in Coleg Harlech, a long-term residential college for adult students.

Broad managerial experience and proven achievement in the public and private sectors are important requirements for this demanding and rewarding post which will involve the successful applicant in all aspects of the administration and management of the College.

Applications to the Registrar, Coleg Harlech, Harlech, Gwynedd LL46 2PU (from whom further particulars can be obtained) by 31 May 1985. (70248)

WORKERS' EDUCATIONAL ASSOCIATION
North of Scotland District

DISTRICT SECRETARY

(Re-advertisement)

Applications are invited from suitably qualified and experienced persons for the post of District Secretary of the North of Scotland WEA. The District Secretary is the senior executive officer of the District, responsible for the educational programme, administration and management of the District.

The District covers a very large geographical area. Although based in Aberdeen, the District Secretary is required to undertake a considerable amount of travel, often involving overnight absences. A willingness regularly to work evenings and weekends is also essential.

Salary Scale:- £12,600 – £14,316 (Under review)

Applications forms and further details from the District Secretary, WEA, 165 King Street, Aberdeen, AB2 3AE. Telephone (0224) 642723.

Closing date: 31st May 1985. All previous applications will be reconsidered automatically. (70642)

PLEASE MENTION THE T.H.E.S. WHEN REPLYING TO ADVERTISEMENTS

Overseas

UNIVERSITY OF MALAWI

STAFF VACANCIES: KAMUZU COLLEGE OF NURSING

Applications are invited from suitably qualified candidates for the following posts tenable from September/October 1985 – or as soon thereafter as possible – at Kamuzu College of Nursing, Lilongwe, a constituent College of the University of Malawi.

Assistant Lecturers/Lecturers/Senior Lecturers in Medical Surgical Nursing

The successful applicants will be required to teach courses in Clinical Nursing and Nursing Science in a programme leading to the award of a 3-year Diploma in Nursing, followed by a one-year Certificate in Midwifery.

Candidates must possess a good Bachelor's Degree in Nursing, plus preferably an MSc in an appropriate field, as well as teaching and/or clinical experience.

Assistant Lecturer/Lecturer/Senior Lecturer in Psychiatric Nursing

The successful applicant will be required to teach courses in Nursing and Clinical Science in a programme leading to the award of a 3-year Diploma in Nursing, followed by a one-year Certificate in Midwifery.

Candidates must have a good Bachelor's Degree in Nursing, plus preferably an MSc in an appropriate field, as well as teaching and/or clinical experience.

Assistant Lecturer/Lecturer/Senior Lecturer in Biology

The successful applicant will be required to teach introductory courses in at least three of the following subjects, (1) Anatomy, (2) Physiology, (3) Microbiology, (4) Parasitology, and (5) Nutrition, in a programme leading to the award of a 3-year Diploma in Nursing, followed by a one-year Certificate in Midwifery.

Candidates must possess a good Honours Degree in either Biology or Zoology, plus preferably an MSc in an appropriate field, as well as some teaching experience.

Salary scales for non-domiciled staff (including expatriate addition), taxable in Malawi:

Assistant Lecturer	K 5,699 – K 8,174
Lecturer	K 8,070 – k11,445
Senior Lecturer	K10,952 – K13,110

Family passages, various allowances, biennial overseas leave, and partly-furnished housing in Lilongwe, as well as a 15% tax-free gratuity for an initial contract of 22 months and 25% for 3–4 years.

Applications should reach the Registrar, University of Malawi, P.O. Box 278, Zomba, Malawi, as soon as possible, and not later than 7 June 1985, and should include a full curriculum vitae, as well as the names and addresses of three referees.

30 April 1985 (70241)

UNIVERSITY OF QUEENSLAND

LECTURER IN MEDICAL STATISTICS
(tenurable)
Social and Preventive Medicine

Degree in mathematics or statistics with experience in medical data desirable. Higher degree or progress towards also an advantage. Provide instruction in statistics to medical students and consultant service to senior students/medical researchers. Participate in epidemiological research projects. Statistical programming for minicomputer and University's mainframe computers also important.

Closing date: 21st June 1985. Ref. 17285

LECTURESHIP IN DRAMA
(tenurable)
English

Higher degree and major competence in the fields of nineteenth and twentieth century drama required. Competence in one or more of the fields of Mediaeval and Renaissance drama and theatre history also desirable. Preference to applicants with experience in threatre practice and some knowledge of the practice or teaching of media studies an advantage.

Closing date: 21st June 1985. Ref. 17286

Academic salary (as at 1985) $A28,206 – $A34,467

Additional information and application forms for above two posts are available from the Secretary-General, Association of Commonwealth Universities, 36 Gordon Square, London WC1H 0PF.

POSTGRADUATE STUDENTSHIP
Civil Engineering

The Department of Civil Engineering and Division of Geomechanics CSIRO are supporting a Ph.D. student in computational mechanics applied to Geoengineering at the University of Queensland, Brisbane. The specific application will be to excavations in soil and rock and the study of problems in their design. The candidate must have an honours degree or equivalent in civil, mining engineering or applied mathematics with a strong interest in computational mechanics, either in boundary/finite or discrete element methods.

The studentship of $A7,7000 per annum plus $A2,200 for a dependent spouse and $A728 for each dependent child is available for three years. Some support available for relocation to Brisbane.

Applications containing personal history, certified copies of academic qualifications, names of at least two academic referees and a recent photograph, to Dr. J. L. Meek, Department of Civil Engineering, University of Queensland, St. Lucia, 4067 by 1st July 1985. Ref. 17285.

The University of Queensland is an Equal Opportunity Employer. (70270)

Technical Consultant
Engineering Department Yarmouk University - Jordan

Reporting to the Dean of the Engineering Department, the officer will be required to evaluate and advise on the preparation and installation of Engineering Laboratory equipment, in particular relating to machine shop and civil engineering equipment.

Other duties include assisting with the Department's syllabus, and the provision of field training in the operation and maintenance of the laboratory machines and equipment.

Applicants should be British Citizens, and Chartered Engineers familiar with HND, HNC polytechnic training with ten years relevant experience and knowledge of machine shops and laboratory equipment.

The appointment is on contract to ODA on loan to the Government of Jordan, for a period of 9-12 months, and could be offered on secondment terms provided the applicant's employer is agreeable. Salary (UK taxable) is in the range £12600 to £16828 pa, including an element in lieu of superannuation. A variable tax free Foreign Service Allowance, currently in the range £3960 to £9426 pa, is also payable.

The post is wholly financed by the British Government under Britain's programme of Aid to the developing countries. Other benefits normally include paid leave, free accommodation and medical attention.

For full details and application form, please apply, quoting ref. AH306/AF/TES, giving details of age, qualifications and experience to: Appointments Officer, Overseas Development Administration, Room 361, Abercrombie House, Eaglesham Road, EAST KILBRIDE, Glasgow G75 8EA.

OVERSEAS DEVELOPMENT
ODA
Britain helping nations to help themselves

WAIT Western Australian Institute of Technology

Tenured Principal Lecturer

INFORMATION ENGINEERING
Salary (Aust.) $46,397 p.a.

Applications are invited from suitably qualified persons for the newly created position of Principal Lecturer in the School of Electrical and Electronic Engineering.

The successful applicant will be required to provide a strong leadership role in one of the following areas: VLSI design, computer systems or communication systems engineering.

Responsibilities will include teaching at undergraduate and postgraduate level, personal R & D and inter-action with local industry.

Preference will be given to applicants with teaching experience, a record of scholarly achievement and a commitment to academic excellence.

Conditions: Include fares for appointee and family plus assistance with removal expenses; superannuation.

Applications: Details including the names and addresses of three referees should be submitted not later than 12 July 1985 to the Appointments Officer, Western Australian Institute of Technology, Kent Street, Bentley, Western Australia, 6102. A Brochure containing further information may be obtained by Telex (AA62983) or Cable (WAINTECH) citing "Appointments", position reference number and your return airmail address.

When applying please quote Ref. No. and Code HE5.

DUBAI
THE RASHID SCHOOL FOR GIRLS

PACES Recruitment Consultants have been instructed to recruit:

A MEDIA RESOURCES OFFICER (FEMALE)

for this exclusive all girls school.

This is a challenging post for a single status woman, with energy and enthusiasm, to establish an Audio Visual Resources Unit. Candidates must have a British Educational background, and be well qualified, with a degree or HNC, preferably experienced in working in a British Secondary School, with responsibility for Audio Visual Aids, graphic art, sound engineering etc. etc.

The Salary will be in the range £12,000 – £15,000 with luxury free accommodation, return air fare, medical insurance and terminal gratuity.

PACES

If you feel that you meet the exacting requirements of this job, please send a stamped addressed envelope to: Dept. R6, PACES, 6b Eccleston Gardens, St Helens, WA10 3BN.

CLOSING DATE: WITHIN 21 DAYS OF THE APPEARANCE OF THIS ADVERT (70281)

DARWIN INSTITUTE OF TECHNOLOGY

SCHOOL OF CREATIVE AND APPLIED ARTS
HEAD OF DEPARTMENT FINE ARTS

(PRINCIPAL LECTURER/ SENIOR LECTURER)
POSITION NO: CAA9

SALARY: A$40,628 p.a./A$33,331 – A$35,690; A$36,475 – A$38,847 p.a.

The School of Creative and Applied Arts invites applications for the above position. An appointment will be made at Senior Lecturer or Principal Lecturer level.

The major courses offered are a four year, full-time UG1 Bachelor of Arts (Fine Art) and a two year associate diploma in ceramics. Major studies are offered in Ceramics, Painting, Printmaking, Photography and Sculpture.

In addition to the above Courses, the Department of Fine Art teaches recreational and matriculation classes.

The successful applicant will be required to function as Head of Department for a minimum period of three years and lead a staff of ten full-time Lecturers, three support staff and seven part-time Tutors.

The successful applicant will hold appropriate tertiary qualifications and will be an Artist, Art Educator, Art Historian or Art Administrator and Teacher of outstanding ability in one of the Department's major areas of study as well as possessing wide administrative experience in Fine Art Programmes at a tertiary level.

CONDITIONS OF SERVICE:
In addition to salary a District Allowance of A$2,060 p.a. (with dependants) or A$1,176 p.a. (without dependants) is also payable. A copy of the Institute's Conditions of Service, together with an information statement on the above position and the Department will be forwarded on receipt of applications.

APPLICATIONS
Applicants must submit a portfolio of recent, representative works on photograph, colour transparencies, film or video, with their applications.

Application forms can be obtained from:

The Senior Personnel Officer
DARWIN INSTITUTE OF TECHNOLOGY
P.O. Box 40146
CASUARINA, NT. 5792
AUSTRALIA

or by telephoning (089) 204494
CLOSING DATE: 21 June 1985 (70244)

RMIT

AUSTRALIA

SENIOR LECTURER
Department of Electrical Engineering

A vacancy exists for a permanent Senior Lecturer within the Department of Electrical Engineering. The Department is part of the Faculty of Engineering and offers an undergraduate course leading to Bachelor of Engineering and higher degrees by research and thesis.

The main areas of the departmental activities are energy conversion, transmission and electric power utilization, high voltage engineering and electrical measuring techniques; industrial electronics including power electronics and microprocessor applications; control systems and instrumentation; variable speed drives and electromechanical systems.

Applicants should possess experience in one or more of these areas. However, a good knowledge of the theory and design of variable speed drives and electromechanical systems and control systems with application of power electronics and microprocessors is desirable.

Qualifications and Experience: Higher Degree in Electrical Engineering or equivalent experience. Previous teaching and/or research activities will be an advantage.

Duties: The successful applicant would be required to teach at both undergraduate and postgraduate levels, supervise higher degree projects, and take part in applied research. Some consulting work may be available.

Salary range: A$33,331 – A$36,847, p.a. plus 2.5% National Wage Increase. (An increase of 2.5% – 3% to the basic salary range currently pending).

Reference No. 113/06/AN. Applications close: 1 July, 1985.

Interested applicants should obtain a copy of the Position Description from Personnel Services Group by writing to:

ROYAL MELBOURNE INSTITUTE OF TECHNOLOGY LIMITED
GPO Box 2476V, Melbourne, 3001, Australia. (70243)

SYDNEY – AUSTRALIA
The University of New South Wales
FACULTY OF APPLIED SCIENCE

ELECTRON MICROSCOPIST
(REF.211)

Electron Microscope Unit has recently established a Physical Sciences Section to provide teaching and research facilities for relevant disciplines within the University. It will consist of two Transmission Electron Microscopes and two Scanning Electron Microscopes, specimen preparation facilities and support staff. The appointee will be involved in the establishment of the unit, the work of students and staff and his/her own research, preferably in the area of materials.

Further information from Associate Professor G.R. Wallwork, Head, School of Metallurgy, (02) 697 4426.

SALARY: Within one of the ranges: A$28,206 – A$34,467
A$35,203 – A$41,029

Applicants should forward two copies of their curriculum vitae, including telephone number during business hours, transcripts of academic record and the names and addresses of two referees to the Academic Staff Office, P.O. Box 1, Kensington, N.S.W. 2033, Australia by 30 June, 1985

Equality of employment opportunity is University policy.

Overseas continued

Chronicle

SENIOR LECTURER/ LECTURER IN ECONOMIC HISTORY

Applications are invited, for the above post vacant from 1 January 1986.

Candidates should be able to teach and develop a wide range of courses, but special interest in the modern economic history of Western Europe and its expansion overseas will be an advantage.

Appointment, according to qualifications and experience, will be made within the salary scale: Senior Lecturer: R24,403 - R28,765 per annum. Lecturer: R17,367 - R22,886 per annum, with an annual bonus and attractive staff benefits.

Applicants should submit a full resume including publications and the names and addresses of three referees not later than 28 June 1985 to the Registrar (Attention: Appointments Office), Department DQ/349, University of Cape Town, Private Bag, Rondebosch, 7700 South Africa, from whom further information should be obtained.

UCT is an equal opportunity employer. (50327) H15

CAMP COUNSELORS wanted for American students in London. 30 days from July 14. Accommodations inclu. £500. Reply: PO Box 11493, Philadelphia, PA 19111 USA. (60325) H13

Miscellaneous

Council for National Academic Awards

ASSISTANT REGISTRAR

Applications are invited for the post of Assistant Registrar for Development Services. The post is for a three year period. Secondment will be considered.

The Development Services Unit of the Council facilitates, supervises and undertakes development and applied research projects related to the work of the CNAA, its affiliated institutions and the higher education system. The CNAA has now established a Development Fund whose servicing falls primarily to the Officers of the Unit.

The postholder will be expected to be responsible for several projects, to provide support for other projects, and to contribute more widely to the work of the Unit, the Officer Division to which it belongs and the work of the Officers generally.

Candidates for the post should be well qualified academically and/or professionally and should have relevant teaching and/or administrative experience. In addition experience of applied research and development work, preferably in relation to higher education, is desirable.

The salary scale is £12,213-£17,505 p.a. including London Weighting. Salary on appointment is unlikely to exceed £15,618 p.a.

Further particulars may be obtained from: The Personnel & Training Officer, The Council for National Academic Awards, 344-354 Gray's Inn Road, London WC1X 8BP. Telephone: 01-278 4411. Extension 222, to whom applications giving details of qualifications and experience and the names of two referees should be submitted by 7 June 1985. (70693)

Council for National Academic Awards

ASSISTANT REGISTRARS

Applications are invited for two posts of Assistant Registrar, with initial responsibilities in Teacher Education.

In addition to work in the Teacher Education area, the Assistant Registrars will be involved in the development of the Council's academic policies generally.

The posts are available from 1 September 1985.

Candidates for the post should be well qualified academically and/or professionally and should have relevant teaching and/or academic administrative experience. Applicants seeking secondment to the Council would be welcomed.

The salary is £12,213-£17,505 p.a. including London Weighting. Salary on appointment is unlikely to exceed £15,618 p.a.

Further particulars may be obtained from: The Personnel & Training Officer, The Council for National Academic Awards, 344-354 Gray's Inn Road, London WC1X 8BP. Telephone: 01-278 4411. Extension 222, to whom all applications giving details of qualifications and experience and the names of two referees should be submitted by Friday, 7 June 1985. (70692)